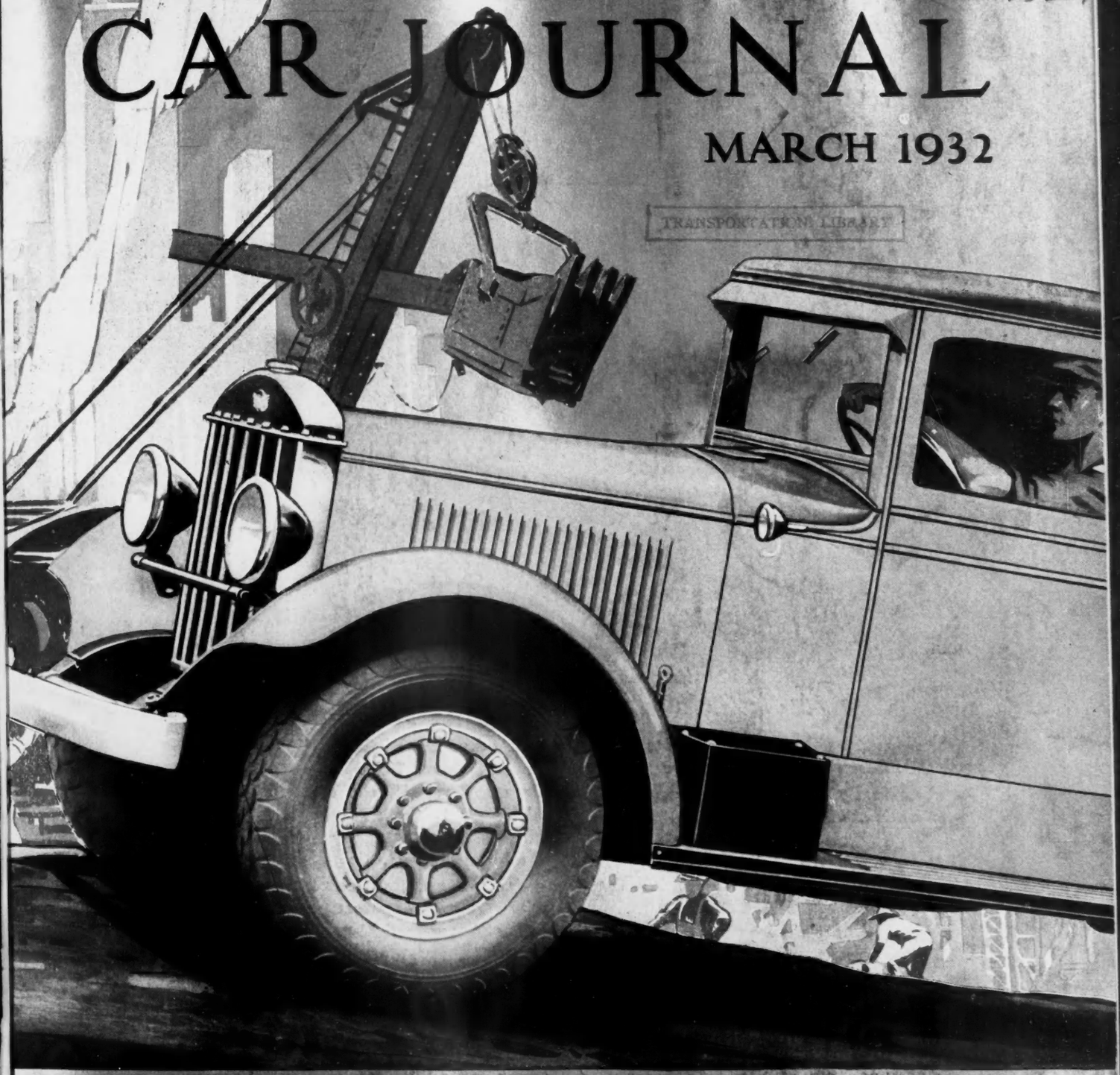
COMMERCIAL CAR JOURNAL

MARCH 1932



NEW TRUCKS FOR 1932

YOUR haulage requirements can be met precisely by Pierce-Arrow trucks specifically built to fit the exacting demands of:

A—different industries
B—different localities
C—varied state laws

Pierce-Arrow's adoption of a system of progressive interchangeability in design and manufacture make available 24 chassis of various sizes, ranging from 12,000 to 44,000 pounds maximum gross weight, with four or six wheel equipment. Tractors are available from 24,000 pounds to 75,000 pounds maximum gross train weight.

Heavy duty six and eight cylinder engines develop from 70 to 150 horsepower. Frames are of heat treated chrome nickel steel. There is a choice of worm or double reduction gear drive in all of the larger models.

Various combinations within bounds of sound truck engineering, as developed in the 24 standard Pierce-Arrow chassis, assure the customer a truck virtually erected from specifications dictated by his particular haulage task.

Such unusual flexibility in manufacturing makes it possible to obtain high grade trucks of Pierce-Arrow quality without paying the premiums of custom built equipment.

PIERCE-ARROW

BUFFALO · NEW YORK

COMMERCIAL CAR JOURNAL

with which is combined Operation & Maintenance

Entered as second-class matter at the Post Office at Philadelphia, Pa., under Act of March 3, 1879

Vol. XLIII Philadelphia, March, 1932 No. 1

TABLE OF CONTENTS

FEATURE ARTICLES

NEW PRODUCT DESCRIPTIONS

DEPARTMENTS

Published Monthly by
CHILTON CLASS JOURNAL COMPANY
Chestnut and 56th Streets, Philadelphia, U. S. A.

C. A. MUSSELMAN, President and General Manager
J. S. HILDRETH, Vice-Pres. and Director of Sales
W. I. RALPH, Vice-Pres. G. C. BUZBY, Vice-Pres.
JOHN A. CLEMENTS, Assistant Treasurer
A. H. VAUX, Secretary and Treasurer
A. W. BROWNELL, Business Manager Commercial Car Journal
GEORGE D. ROBERTS, Advertising Manager

Telephone ..... Sherwood 1424, Philadelphia

OFFICES

New York—239 W. 39th St., Phone Pennsylvania 6-0080
Chicago—367 West Adams St., Phone Randolph 9448
Detroit—710 Stephenson Bldg., Phone Madison 2090
Cleveland—1140 Guardian Bldg., Phone Main 6860
San Francisco—1045 Sansome St., Phone Douglas 4306
Los Angeles—Room 651, 1206 Maple St., Phone Westmore 6477
Portland, Ore.—311 Pine St.

Controlled by United Business Publishers, Inc., 239 W. 39th St., New York; ANDREW C. PEARSON, Chairman Board of Directors; FRITZ J. FRANK, President; C. A. MUSSELMAN, Vice-President; F. C. STEVENS, Treasurer.

SUBSCRIPTION RATES: United States and United States Possessions—$2.00 per year. Pan-American Union and Canada—$3.00 per year. Foreign—$4.00 per year. Single copies 40 cents.

Make Checks, Money Orders, etc., payable to Chilton Class Journal Company
MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS

New and HIGHER STANDARD for ETHYL GASOLINE

Use Ethyl for Safety and more Efficient Operation

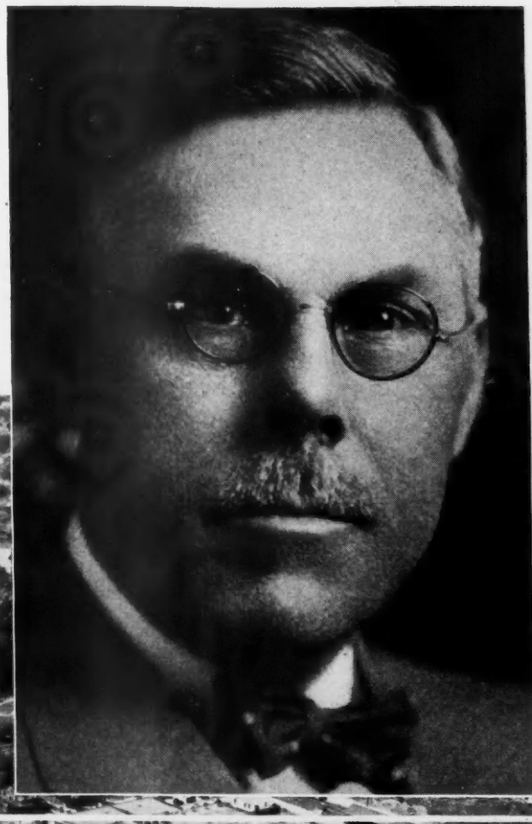
The pounding of a knocking engine is as bad on the driver's nerves as it is on the engine. He isn't likely to take much care of a truck that he feels is ready for the scrap pile anyhow. Ethyl stops knocking!

The increasing use of Ethyl Gasoline by truck operators is definitely a step toward safer, more efficient operation. Because Ethyl pulls better, it doesn't necessitate shifting into slower low gears and there is less temptation to "whoop it up" when a hill is in sight.

Routes can be covered in less time without exceeding safe speed limits. Drivers find the Ethyl fueled truck less fatiguing because of reduced shifting and strain. Truck owners find better results from the standpoint of increased efficiency, both from their drivers and their equipment.

COMMERCIAL
CAR JOURNAL

PHILADELPHIA PENNSYLVANIA
MARCH, 1932 VOLUME XLIII, No. 1



There Would be No Need of Federal Regulation of Trucks if Truckers and Railroads Would Recognize the Limits of Their Utility. Both are most Vital to Our Business and Social Existence

THE PRESIDENT'S PAGE

By

Walter G. Olen

PRESIDENT
The Four Wheel Drive Auto Co.

IF the truckers quit using trucks on long hauls and the railroads quit using freight cars on L.C.L. short hauls, both can fit into the industrial picture.

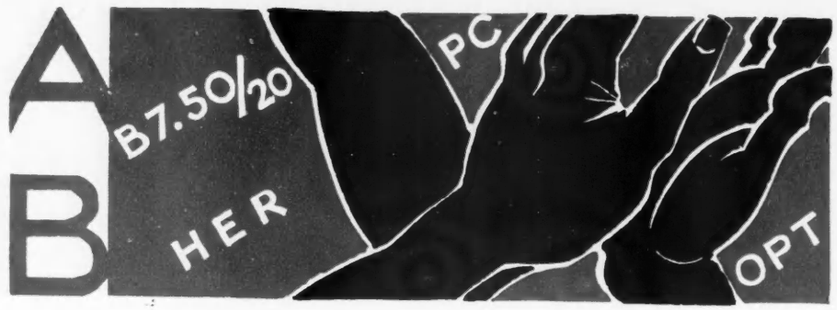
Truck regulation is a problem to be solved by the State and not the interstate commerce commission, because trucks are local in their operation and usefulness.

Trucks are a benefit to the railroads just as horses were in their day, with this difference: the 12-mile radius of the horse has been extended to about 60 by the use of trucks.

Railroads were built with horse transportation fully developed and with full knowledge of its usefulness as an auxiliary to the railroad. United States Government reports show that the range of operation of a team of horses is between 11 and 12 miles from a given base and the same is true of the caterpillar tractor and wheeled tractor. This, no doubt, is the reason why railroads could develop a country agriculturally and industrially for a distance of 12 miles from the track on each side. It was due to the cooperation of team transportation that enabled them to operate profitably that distance from the railroad and thus be feeders for the road.

Now the new type of transporta-

TURN TO PAGE 37, PLEASE



NEW SPECIFICATIONS

IN this issue, to the ringing plaudits of truck factories, the COMMERCIAL CAR JOURNAL Specifications Table makes its first public appearance after undergoing an operation of major calibre. How major, you may judge for yourself after a glance at the patient's operating room record. Editorial surgery had effected the following health-promoting changes when the patient was wheeled into the editorial forms of this issue:

1. Elimination of the former method of grouping truck models according to tonnage ratings and substitution therefor of a listing in which the makes of trucks are published in alphabetical order.

2. Addition of four new columns: one for the "Tonnage Rating or Tonnage Range"; a second for "Maximum Torque in Foot-Pounds"; a third for "Compression Ratio," and a fourth for "Brake Drum Material."

3. Omission of the listings of such companies as arbitrarily refuse to publish list prices.

4. Provision of additional space in the "Gross Vehicle Weight" column to enable manufacturers to rate their trucks according to a standard truck rating formula the moment the Society of Automotive Engineers makes one available.

5. Substitution of "Service Brake Lining Area" for the former "Service Brake Drum Area."

6. Regrouping of the column headings.

7. Clarification of several existing headings.

Most readers, it is safe to wager, have been unaware that anything ailed the distinguished patient. To be candid about it there was nothing to arouse their suspicion, because throughout his affliction the patient

SOME OF THE HANDCLAPS FROM TRUCK FACTORIES

You have taken a step in the right direction. —LaFrance-Republic Corp.

Compliment you on the revision as it will eliminate considerable confusion. Also wish to compliment you on your "Chassis Price" policy.—General Motors Truck Co.

Heartily in accord with your views . . . believe the new arrangement one of the best things you have done for a long time.—Robert M. Cutting Co. (Chicago Trucks).

Greatly appreciate the change.—Gramm Motors, Inc.

Very much pleased with new listing and glad indeed to see you put the system into effect. —Wichita Falls Motor Co.

Congratulations on your new scheme of arranging specifications.—International Motor Co. (Mack).

Congratulations!—Diamond T Motor Car Co. We welcome your new method.—Grass-Premier Truck Co.

Believe your new method of listing will be more fair and also easier for readers to use. —Nelson LeMoon Truck Co.

TABLE WINS APPLAUSE

Alphabetical Listing by Make, List Prices Throughout, Tonnage Ranges and New Column Headings Are Among Momentous Improvements

By GEORGE T. HOOK

remained outwardly healthy. It was the editors alone who suffered because each symptom, as it developed, fell to their lot, since on their shoulders rested the responsibility of keeping the patient in a state of health that would best serve the interests of the truck industry.

Actually this plaguey parade of high blood-pressures, galloping temperatures and splitting headaches which afflicted the editors had its inception when the tire industry started doing positively phenomenal things with high-pressure and low-pressure pneumatics. The tire developments brought with them the complication of variation in load-carrying capacity according to size. This variation in load-carrying capacity endowed every truck chassis with a spread of tonnage ratings. The industry no longer felt inclined to say "this is a 1-ton truck and there is a 2-ton truck and over yonder is a 3-ton job." The inclination was to indicate a chassis and say "this is a 1 to 1½-ton truck and there is a 2 to 3-ton truck and over yonder is a 3 to 5-ton job." This was perfectly justifiable because a mere change in tire sizes altered the load-carrying capacity.

With such justification to bolster their courage many manufacturers felt equally justified in requesting that since COMMERCIAL CAR JOURNAL'S Specifications Table classified truck chassis according to tonnages, a model with a spread of ratings should be listed in each of the tonnages comprising its range. Thus, for example, a Model Z with a tonnage range of 2 to 3 tons would be listed three times, once in the 2-ton group, again in the 2½-ton group and a third time in the 3-ton group.

LET'S LOOK AT THE RECORD . . .

Since its inception back in January, 1914, as the Buyers' Reference Review, the Commercial Car Journal Specifications Table has increased from a tabulation giving 27 items of specifications information to the one in this issue giving 69.

The Buyers' Reference Review, published as a semi-annual feature, became a monthly feature in the March, 1919, number with 32 items of information.

The next major revision was made in April, 1930, when the table came out with 66 items.

All previous tables grouped models according to tonnages, which makes the current revision to alphabetical listing a momentous one.

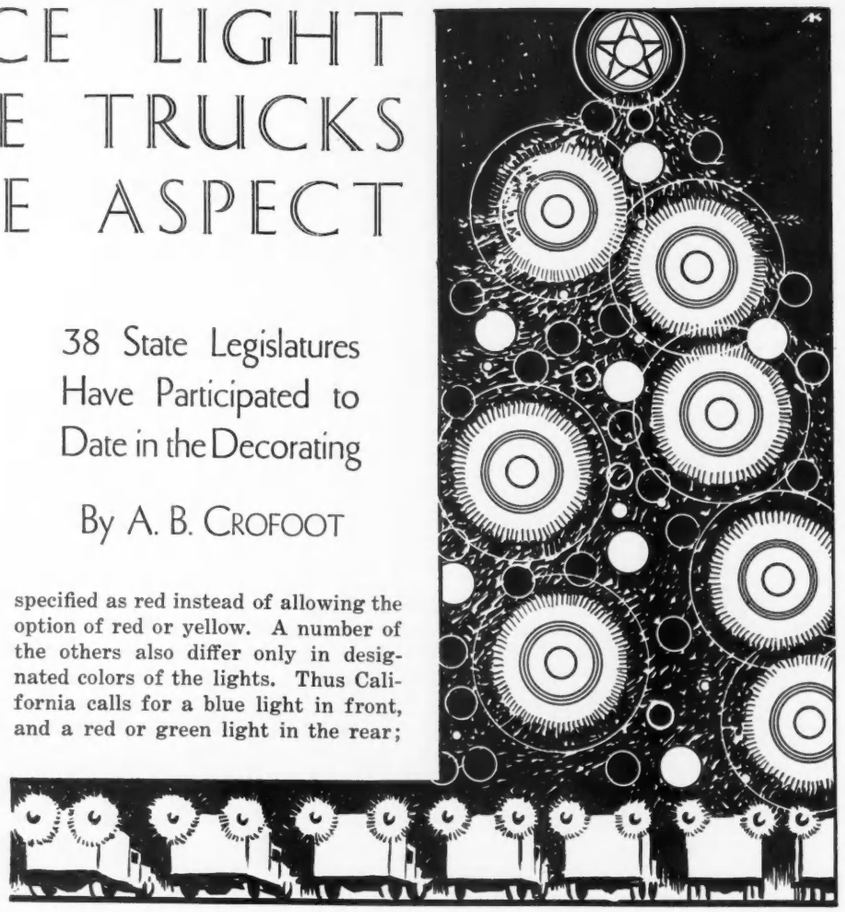
For a while these requests for duplicate, triplicate and, in some instances, even quadruplicate listings were granted. The editors, to be candid, were in a tough spot, a spot which became tougher as other manufacturers became aware that they were missing something. The realization grew upon the editors that while tires were the root of the evil harassing them, the breakdown of the Specifications Table into Tonnage Classifications was propagating the evil; that so long as COMMERCIAL CAR JOURNAL adhered to its Tonnage Classifications and asked manufacturers to list their chassis accordingly, the manufacturers would cooperate unstintingly. Toward the end of the editorial headache, lack of space made it necessary to refuse requests for duplications. This muddled the situation temporarily because manufacturers had to be granted the privilege of indicating a model's spread of rating some way. Instructions in this regard were not always implicitly obeyed, and it was never safe to wager that Model Z with a 2 to 3-ton spread would be found in the 2-ton group. After a patient search you might find it in the 2½-ton group or your quest might take you into the 3's.

But by that time the editors were on the trail of a solution and sparring for time. They were spurred on by three realizations: (1) That the Specifications Table was becoming bloated with duplications which, if they were permitted, like water, to find their own level, would spread until they inundated the better part of the editorial section of the publication; (2) that because of the non-conformity of certain manufacturers, readers were experiencing difficulty in finding specific models readily; (3) that a revision of the table was imminent anyway because of the progress made by the Society of Automotive Engineers' standard truck rating formula committee.

So they took their high blood-pressures, their galloping temperatures and their headaches out into the field. When they had finished a wide canvass of salesmen, dealers, branch managers, factory engineers and fac-

TURN TO PAGE 44, PLEASE

CLEARANCE LIGHT LAWS GIVE TRUCKS XMAS-TREE ASPECT



38 State Legislatures Have Participated to Date in the Decorating

By A. B. CROFOOT

POSITIVE assurance that a commercial vehicle shall be visible at all times and from all angles during night operation, seemed to be one of the principal concerns of state legislators last year. Laws were passed in 13 states, either introducing new or revising existing regulations regarding the use of clearance lights on buses and trucks operating at night. Next in order of importance, in the minds of these legislators, appeared to be the necessity for equipping combinations such as truck and semi-trailer and four-wheel trailer with adequate brakes. Nine states passed new laws requiring that such trains be equipped with brakes that could be operated from the driver's seat, to act not only on the towing vehicle, but on the towed vehicles as well.

Other legislation affecting the equipment of commercial vehicles was comparatively minor. Three states enacted laws requiring that trailers be attached to the towing vehicle with some sort of a coupling device that would limit the deviation of their trackage from that of the towing vehicle to from 3 to 6 in. These states this year also call for safety chains linking the trailer to the tower. Two states call for the use of shatterproof glass under certain conditions, and Alabama now requires that vehicles 36 ft. long or more and carrying more than 10,000 lb. per axle be equipped with a governor which would prevent their traveling at speeds in excess of 35 m.p.h. Solid tires were prohibited in Kansas and Oregon on all vehicles and in Illinois on vehicles carrying over seven passengers.

Considering in greater detail the question of clearance lights, we find that a number of states follow the uniform vehicle code in this respect. This code suggests that where a vehicle is 80 in. or more wide, it carry two lights on the left side, one white and visible from in front for a distance of 500 ft., and the other red or yellow and visible from the rear for a distance of 500 ft. Many of the laws, both of the old and of those enacted last year, conform to this with the exception that in most instances the rear clearance light is specified as red instead of allowing the option of red or yellow. A number of the others also differ only in designated colors of the lights. Thus California calls for a blue light in front, and a red or green light in the rear; Delaware calls for a green light in the rear with a white light ahead; Indiana, Ohio, Nebraska and Vermont specify green lights in the front and red lights in the rear, and New York calls for a yellow light in front and a red light in the rear. Other minor variations are found in such states as Pennsylvania and Texas, where the width requiring marking lights is changed to 90 in. in the case of Pennsylvania and 70 in. in the case of Texas. Pennsylvania also permits green lights ahead as optional.

Three states enacted laws this past year requiring marking lights or reflectors on the side as well as at the front and rear. Iowa and Utah require white marker lights not exceeding 4 cp., or reflectors along each side at intervals not exceeding 20 ft. for combinations exceeding 33 ft. in the case of Iowa and 20 ft. in the case of Utah. Illinois specifically calls for reflectors at one-third intervals along the length for units exceeding 2 ft. in length, the reflectors to be at right angles to the vehicles and to be not more than five feet from the ground. Delaware already had a law requiring vehicles more than 33 ft. long to carry side lights at every 10 ft. along the side.

TURN TO PAGE 48, PLEASE

STATES HELPING IN THE TRIM

State	Clearance Lights	Uniform Vehicle Code	Trailer Brakes	State	Clearance Lights	Uniform Vehicle Code	Trailer Brakes
Ala.	y	y	n	Nev.	y	n	n
Ariz.	y	y	n	N. H.	y	n	n
Ark.	y	y	n	N. J.	n	n	n
Calif.	y	n	y	N. Mex.	y	y	n
Colo.	n	n	n	N. Y.	y	n	y
Conn.	y	n	y	N. C.	y	n	y
Del.	y	n	y	N. D.	y	y	n
Fla.	n	n	y	Ohio	y	n	n
Ga.	n	n	y	Okla.	y	n	n
Idaho	y	y	n	Ore.	y	n	y
Ill.	y	n	y	Pa.	y	n	y
Ind.	y	n	n	R. I.	n	n	n
Iowa	y	n	n	S. C.	y	n	n
Kan.	y	n	y	S. D.	y	y	n
Ky.	y	n	n	Tenn.	y	y	n
La.	y	y	n	Texas	y	n	y
Me.	y	n	n	Utah	y	n	y
Md.	n	n	n	Vt.	y	n	n
Mass.	y	n	n	Va.	n	n	n
Mich.	y	n	n	Wash.	y	n	y
Minn.	y	y	n	W. Va.	y	n	n
Miss.	n	n	n	Wis.	y	n	y
Mo.	n	n	n	Wyo.	y	n	n
Mont.	n	n	n	D. of C.	n	n	n
Neb.	y	n	n				

Reflectors are permitted under certain circumstances in the following states: Conn., Ill., Ind., Iowa, Mich., N. H., Tex., and Utah.

The analysis does not undertake to indicate where and how many and what kinds of clearance lights are required because of the complex nature of such a table. Operators unfamiliar with the requirements of states in which they intend operating should make inquiry to procure specific information.

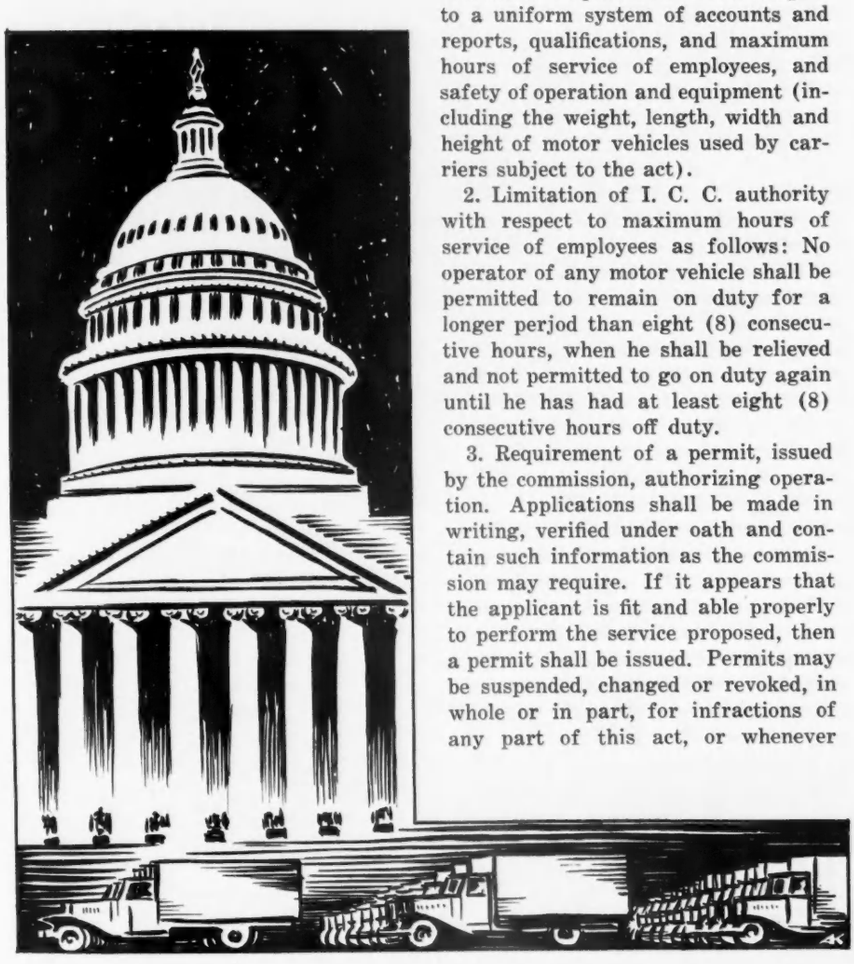
Key of Abbreviations: y-yes; n-no.

TRUCK FORCES WHEEL INTO ACTION AGAINST COUZENS

Vigorously Oppose Federal Regulation of Carrier Trucks

MOTOR truck interests descended upon the national capital during the first week of February to participate in the hearings by the Senate Committee on Interstate Commerce on the Couzens bill, officially known as S2793 and short-titled the "Federal Motor Carrier Act, 1932."

Truck interests were present to protest the provisions of the double-barrelled Couzens bill applying specifically to motor trucks. The bill, briefly, would vest the Interstate Commerce Commission with regulatory powers over buses and trucks operating in interstate commerce. The bus is given full regulation, and while this is what the larger bus operators desire there are a few provisions which do not have their approval. These will be protested when witnesses representing bus interests are given an opportunity to express themselves. So far in the hearings Senator Couzens, chairman of the committee, has favored the appearance of individuals concerned with the truck aspects of his measure, which are decidedly a Congressional novelty.



Senator Couzens' bill provides for the federal regulation of motor trucks, operated interstate for hire—common and contract—in the following particulars which, let it be said at once, do not include regulation of rates or the need for establishing public convenience and necessity:

1. Establishment by the I. C. C. of reasonable requirements with respect to a uniform system of accounts and reports, qualifications, and maximum hours of service of employees, and safety of operation and equipment (including the weight, length, width and height of motor vehicles used by carriers subject to the act).

2. Limitation of I. C. C. authority with respect to maximum hours of service of employees as follows: No operator of any motor vehicle shall be permitted to remain on duty for a longer perjod than eight (8) consecutive hours, when he shall be relieved and not permitted to go on duty again until he has had at least eight (8) consecutive hours off duty.

3. Requirement of a permit, issued by the commission, authorizing operation. Applications shall be made in writing, verified under oath and contain such information as the commission may require. If it appears that the applicant is fit and able properly to perform the service proposed, then a permit shall be issued. Permits may be suspended, changed or revoked, in whole or in part, for infractions of any part of this act, or whenever the public interest shall so require.

4. Permits shall be transferable unless there is involved the consolidation or merger of two or more corporations at least one of which is a common carrier by motor vehicle. In such a case approval of the commission is necessary.

5. Surety bond or policy of insurance shall be furnished to protect the public and shipper. Furthermore, that the bond or policy shall include a provision appointing the operator an attorney-in-fact of the surety or insurer and that service upon him shall make the surety or insurer a party to the suit. Moreover, recovery upon any bond or policy shall not be held to preclude recovery against the operator for his liability, if any, in excess of the amount covered by the bond or policy.

6. Conviction of violation of any provisions of the act carries with it a fine of not more than $100 for the first offense, and not more than $500 for any subsequent offense. Each day of violation shall constitute a separate offense.

7. Administration features of the act provide for the appointment of a Joint Board by the commission when an operation demanding administrative action involves three or more states.

In stating to the Senate committee the position of the National Automobile Chamber of Commerce, T. R. Dahl, vice-president of The White Co., emphasized the absence of any economic need for common carrier truck regulation. Of the 3,490,000 trucks in the country he said 85.8 per cent were privately operated and not subject to public control as to their business. Some 8.7 per cent are operated under private contracts with shippers. It was the Chamber's belief, he said, that contract carriers cannot legally be regulated, and the Chamber's certainty that they cannot be regulated practically.

"That leaves," he argued, "5.5 per cent of motor trucks in this country whose business is the common carriage of commodities over the highway. This must be broken down into intrastate and interstate movements. Interstate common carriers constitute but 1½ per cent of trucks in the country.

TURN TO PAGE 48, PLEASE

SOUND TRUCKS GIVE

By
R. R. HOWARD

THE articulation of business through the use of "sound trucks" is creating another great market for motor trucks, a market which extends to every vocation: butcher, baker, candlestickmaker—all. The field for sound trucks has no bounds. It encompasses all walks of life, be it industrial, social or political—wherever it is desired to reach the ear of the public.

That this new infant of a great family of advertising has gargantuan possibilities there can be little doubt. It is only a few years old and already it is estimated it totals 2000 units. And at the rate this youngster is acquiring foster-parents, godfathers and well-wishers, its growth to the proportions of a sturdy vocation is certain. National and local businesses throughout the country, who have already experienced the persuasiveness of its voice, are strong in its support. In Chicago alone there are at present 135 commercial and 50 private users of the sound truck.

Probably the greatest factor in the growing strength of the sound truck is the relative cheapness of its service. Merchants have found it an inexpensive way of bringing in new customers and more business. Sound truck promoters argue that six hours a day of sound-truck advertising, at a daily cost which approximates the cost of 15 min. of broadcasting over a small radio station, will reach many times as many prospective customers and much more effectively.

Astute politicians, recognizing the intimate and therefore powerful influence of the sound truck, capitalized it during the recent hotly contested political battle in Chicago between the then Mayor "Bill" Thompson and "Tony" Cermak, his successful opponent. Based on the satisfactory performance of the sound truck during this mayoralty contest, the approaching presidential campaign has the promise of golden days to owners of well-equipped sound trucks throughout the country, because national politicians undoubtedly have already scheduled a prominent role for the sound truck in the G. O. P.-Democratic classic.

Evidence everywhere seems to indicate that the amplifier has opened up an amazing new field for the sale of trucks and that there will be a rapid growth of the truck-broadcasting idea. Here are a few interesting achievement stories that sound-truck dealers relate, which contain helpful hints to sellers, users and prospective users of the equipment.

Early last year an enterprising man "blew himself" for a $2,000 sound-equipment job for his large panel truck. It seemed like a considerable sum, but he went out and assembled enough small-city circus, county fair, and outdoor sport events

BUSINESS A VOICE

The Motor Truck in Its New Role as a Local Broadcaster Is Winning Recognition as an Economical Advertising Medium for Trade, Industrial, Political and Social Purposes

contracts to keep his truck busy all through the summer months. At a county fair, for example, he would cover a wide surrounding territory in a pre-advertising campaign through amplified microphone announcements about the fair program, interspersed with lively band marches and other phonograph music. Then he would return to an inside waiting place suitable for dispensing a crowd musical entertainment program and for making special events announcements. When the races were under way his amplifying horns would carry in good form to all listeners within a range of a quarter mile or more the last-minute announcements of scratches, substitutions, statements of the judges, accurate reports of positions, and final results. He is reported, during his brief, crowded season, to have "cleaned up" $9,000.

These sound trucks are not to be confused with the makeshift monstrosities, which like parasites have been feeding on the good-will created by the legitimate, well-engineered sound trucks. The "squawkies," as the makeshift noise-makers are commonly termed, sprung up like a pestilence during the early days of truck broadcasting. These jobs with their slapped-on equipment, decrepit chassis and unsightly bodies, irritatingly barking advertising, only succeeded in winning public disapproval, invoking nuisance ordinances and policing. As a result of this reaction many former users, believers still in the efficacy of sound advertising, have swung from the undignified squawkies to the high-grade sound trucks equipped with acoustically pleasant amplification and attractive bodies.

Another story concerns the cavalcade of about 45 Ford trucks which were fitted with high-grade sound equipment and started out over a wide circuit of states to advertise the new Ford car. The Chicago dealer who supplied at least a part of this sound equipment informed me that he could accurately trace through his incoming mail the itinerary of the Ford sound fleet—a continuous flow of letters from persons in the visited towns who had heard the advertising demonstration and who were so favorably impressed with new sound equipment possibilities in their respective territories that they were writing in for additional information.

Still another story concerns a man who had been able for a considerable number of months to keep his sound truck busy in the city of Milwaukee, on the favorable fee basis of a straight $50 per day. This dealer, in his talks to prospective customers argued that, even on the conservative basis of estimated average fees of $25 per day, they will be able "to make a sound truck pay for itself within a year."

The sound truck service which is offered to a prospective client first of all should include an adequate amplifying system to carry a good quality of band music or other kind of phonograph record entertainment—or, if preferred, an amplification of any local radio station program that happens to be on the air. For example, a sound truck hired by a Chicago sporting-goods house during the baseball season always attracted large crowds to the spot where the sound truck was left standing, when they began to amplify a local station's broadcast of an afternoon baseball game which the operator peppered with brief bargain sales announcements through his truck "mike."

These "mike" announcements, if desired, may be "faded into" the entertainment feature. This fading-in method is made practical through the

PARTIAL LIST OF SOUND TRUCK USERS

(The reader can extend this list to include many more vocations. There really is no limit because this new sound-truck vocation is one which all other vocations can make use of)

Advertising agencies	Household movers	Political organizations
Amusement houses	Laundries	Radio trade
Dry cleaners	Meat provisioners	Restaurants
Fuel venders	Newspapers	Schools
Garages	Office furnishers	Shoe manufacturers
Gasoline refiners	Painters	Tobacco producers

manipulation of the two controls which permit separate control of volume on either the microphone or the phonograph. This method often is quite pleasing, when the operator speaks during the soft rendition of a musical number. There also is a tone filter, which enables the operator to make the tone either "brilliant" or "mellow." The human voice may be sent forth soft and low, yet penetrating. Or it may be amplified into a thundering tone which may be heard for a mile, but which, through the magic of the curve of sound deflection through the newest amplifying horns, is equally pleasant when heard at close range. Thus, the sound truck offers a wonderful variety in possible sound and possible spread of this sound.

One Chicago dry-cleaning plant has developed a method whereby each one of their several ornately decorated sound trucks, as it goes slowly through the streets of residential sections, is accompanied by four to six "runners"—light-footed boys equipped with printed matter who ring doorbells. This plan brings housewives to the door just in time to hear the microphone selling talk of the driver.

The touring speed of a sound truck should be only 10 to 5 m.p.h. Both sides of the truck should be decorated with appropriate signs of large letters and few words, so that the message can be understood at a single glance.

Follow the Crowd

The standard day for the sound truck usually is eight hours—six hours of actual broadcasting, and the allowance of one hour each for going and coming. The standard day, other things normal, is usual office and factory hours. There would be variations, for example, when it was planned that instead of the normal touring the truck would be halted at appropriate spots to assemble crowds for more lengthy selling talks and the distribution of special printed matter. Thus, the work of some trucks is concentrated as much as possible into those hours near a factory when the workers are caught coming or going or during their noon hour. Some sound trucks add to their "bag of tricks" by equipping also with moving picture outfits. Then their chief schedule would be the evening hours, when the light begins to dim. Any darkened wall will serve for screening the film.

The promoter of a sound truck brings to bear his heavy guns of argument when he talks with a local merchant who is spending probably $30 to $40 a day for 15 minutes of broadcasting by a small local station —and probably $10 to $20 additional for the entertainment which he also must provide. The sound truck owner argues that for this same $40 to $60 a day the merchant through a sound truck can more effectively reach a much larger audience. He argues that the greater part of this broadcast spread is of no value to the average community merchant, since it is outside his business and goodwill circle. Also the number of listeners will be quite uncertain since the small station must compete with the large station and the national chain programs—and to get the same 15 minutes on a large station probably would cost the merchant $600. They use a like argument in comparing the expected advertising return from the large city newspapers—where the greater part of the circulation is far outside the good-will range of the ordinary community merchant.

Conversion Easy

Any ordinary panel truck body can easily be transformed into a sound-truck housing. Ford and Chevrolet small trucks are quite popular. The sound apparatus will cost from $150 to $800 or more, depending on what is desired. The $150 job will not be recommended by the dealer who expects to give a year guarantee and who expects the job to broaden his good will. One of the dealers with whom I talked made out a list of what he considers the minimum equipment which he thinks "might get by" with a certain percentage of merchant clients. His price for this equipment installed, with the ordinary 90-day to one-year guarantee would be about $250.

The items include:

Amplifier—list price	about	$90
Phonograph—list price	about	25
Tubes—list price	about	17
Microphone—list price	about	40
6 6-volt storage batteries	about	42
Converter—32 volts DC to 110 volts AC—list price	about	40
2 large size dynamic cone speakers—list price	about	34
Switches and volume control, wire, etc.—list price	about	7
Total	about	$295

This itemization, it will be observed, includes storage battery power. But storage battery power decidedly limits the use of the sound truck. Ordinary storage battery equipment will give only six to eight hours a day of amplification; then it will require twice that time to recharge the batteries. This means that the sound truck thus equipped must keep within constant daily reach of adequate battery recharging facilities. This limitation would cut out all long-day service schedules and most small city touring.

Two new developments have come forward to meet these limitations. One plan is a newly developed unit, at a list cost of $65 to $100 or more. It is an AC constant potential generator attachable to a motor car which will supply power for variable speed, with full power maintained at idling engine speed of 400 r.p.m. Under this installation 110 volts of alternating current is held constant at variable speed, and six volts of direct current is generated from the same unit for charging the motor car battery, thus replacing the old DC generator. It will be seen, if this unit is added to the equipment to replace the batteries, that $40 to $60 would be added to the list price.

Another possible battery substitute, and a plan that is rather generally used, is the installation of a reliable gas engine unit in the truck to supply the electrical energy. If this unit is used instead of batteries, about $200 would be added to the cost of the sound equipment outfit.

Another dealer in sound equipment offers the following list for a "a sound job that is up-to-date and efficient":

1-3 stage amplifier using one 224—one 245—two 250 and two 281 tubes with 15-watt output	$148
One two-button microphone	25
Mixing panel	30
Power control panel	20
Two six-foot trumpet horns	100
Two electro-dynamic horn units	100
One 500-watt, 110-volt 60-cycle AC generator driven by a 1-hp. gasoline engine	225
Total	$648

Inside Lay-out

The interior arrangement of the sound equipment is such that it can be easily managed by the truck operator. The double-duty job of truck driving and sound broadcasting is considered to be a little too complicated for some situations. One sound truck owner declared that he always sent two men with his truck on any broadcasting commission through the crowded Chicago "Loop" district. In ordinary territory one man, properly trained, will easily handle the job.

The man who decides to start forth on the adventure of managing a sound truck probably will have active and interesting days. He will be able to capitalize several different kinds of training. He should be trained in how to use his sound equipment and how to keep it in order. Selling his services to merchants and others will demand management activity. He should have or should develop the ability to work up a practical "continuity talk" for his "mike" announcements of the business which he is advertising.

Our Own Ear to the Ground Department

All About the New Fords

Reports emanating from Detroit have brought to this department's attention additional ideas of what the new Ford will look like physically and mechanically. Not for a moment would we have you suppose that this information comes from unimpeachable sources; that would be akin to insinuating that we have the confidence of Mr. Henry Ford himself. But we can assure you that it would be a mistake to treat the information as just another drugstore rumor. You'll be fairer to us and to yourself if you accept the reports as being credible but unauthentic. Here's the latest:

Model A Prices for V-8?

The new Ford is to have interchangeable four and V-eight cylinder engines. Exchange of engines may be made within 60 days after purchase of car. Charge for replacing a four with an eight is to be approximately $100. The V-eight passenger car is expected to sell for about the same price as the present Model A, that is $540 to $560. Wheelbase of four and eight will be about 107 in.

Trucks Up to 5 Tons

The Model AA truck is to be continued until the task of getting the new passenger cars on the market is completed. Then a new line of trucks is to be produced. The new four-cylinder engine is to be used in the lighter jobs and the eight will power larger models up to 5-ton carrying capacity.

Details of Both Engines

Lower half of crankcase extends back of flywheel and up to transmission something like the Model T except it is removable from below. Flywheel ring gear is in two pieces and may be removed after the oil pan is dropped, without disturbing the transmission. Crankshaft is about 2 in. in diameter. Force-feed lubrication used throughout. Valves are larger but the lifter and spring mechanisms are like those in Model A. Pistons are aluminum alloy. Although it is reported camshafts and crankshafts will be cast, these parts at present are coming through as forgings. (With the casting idea the famous name of Krupp is being connected.) Spark advance is automatic. Compression ratios higher than in present high-compression "police" head. Downdraft carburetion with single carburetor, which is coupled to air silencer. Fuel pump is driven from camshaft.

Automatic Clutch on Both

In the transmission, spiral gears are used for the constant-mesh and second speed. Free wheeling is to be provided by an automatic clutch, centrifugal in action.

Frame is Double-Drop

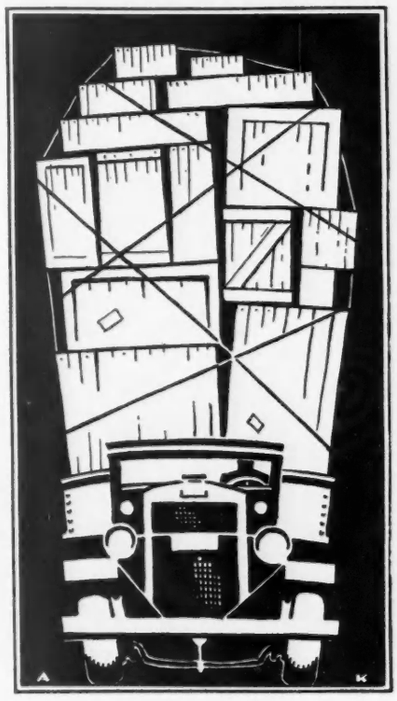
The radiator, 4¼ in. higher than on Model A, is expected to have a V-shaped, sloping, false front. Longer and lower bodies are to be mounted on a double-drop frame. Water tank is larger. Gasoline tank of 15-gal. capacity is mounted in the rear. Shock absorbers are controlled from dash. Front radius rods extend from front axle to frame siderails at a point opposite the transmission, an arrangement which replaces the present forked "wishbone" effect.

Particulars of V-8 Engine

Cylinder dimensions of the V-eight are to be approximately 3 x 4½ in. This would give displacement of about 250 cu. in. Cylinders are cast integral with the block. Crankshaft with integral counterweights is supported in three bearings. Connecting rods are mounted side by side. Piston pin bearings are of thin-walled, rolled type. There is a pump for each block, which calls for the use of two fan belts. Mounting is on rubber.

Chevrolet Will Meet Situation

The natural question, "What will Chevrolet do?" is being answered with the report that Chevrolet is preparing a new eight for production. You can determine for yourself whether there is any truth in this if you simply bear in mind that at their New York show dinner Chevrolet dealers were told "You'll be able to meet any competitive situation which may arise."



THE OVERLOAD

A collection of items—interesting even when not news—and garaged here because there's no other place for such morsels.

Skoll! Salud! Prosit! . . .

In its temporary, rented quarters the Philadelphia Electric Co. fleet repair station is in the midst of surroundings reminiscent of the "good old days" when you could get a real glass of beer with a collar on it 2 in. high. Enormous gilt letters across the front revive intoxicating memories. Spelled out, they read: "Louis Bergdoll Brewing Co."

Nazdrowia! and Here's How!

It may make your emotional jag complete to be reminded that U. S. Postoffice trucks use confiscated liquor in their radiators as anti-freeze. And it may prompt you to hope that it's less corrosive than some of the bootleg stuff you've been asked to drink — just to be sociable, of course.

Think What 30 Bulls Would Do!

Ripley missed this one somehow, but the Farm Journal scooped it up: "Thirty cows in a stable develop enough heat which, if converted into energy, would drive a light truck 60 m.p.h. continuously." (If this doesn't propagate a lot of wisecracks, we don't know a wisecrack fertilizer when we see it.)

Kan Klunks and Klink Koin

Unless there's a reader who can establish prior claim, to C. L. Schneider, manager of the Chicago branch of the Fruehauf Trailer Co., goes the credit for coining the word "klunk" as descriptive of a piece of broken-down truck equipment. "Gillopi" wasn't properly expressive, in Mr. Schneider's opinion, and thought inspired "klunk."

Pardon the Erudition

From a strictly philological standpoint "klunk" deserves not only to supersede "gillopi" and kindred terms but also to be perpetuated in automotive nomeclature. It is acceptable unequivocally in the light of two linguistic theories, jocosely referred to as the "bowwow and dingdong theories," and a good debater could find sanction for it in the third, or "poohpooh theory." (Any good dictionary will define these theories understandably—we haven't the space.) It is acceptable, briefly, because philologists justify the naming of a thing by a more or less exact reproduction of the sound associated with it. "Buzz" and "hiss" are examples. And if "klunk" doesn't reproduce exactly the sound associated with worn-out trucks, there's no such thing in rhetoric as onomatopoeia.

Biographical Note

Robert M. Cutting, who besides being president of the company bearing his name which manufactures Chicago trucks, is a member of the governing board of the United States Golf Association. To his executive qualifications for this distinguished honor must be added his ability as a golfer. His tournament handicap is nine.

It's Too Much to Expect

A truck operator writes us to urge readers to wire their U. S. senators that bus and truck regulation bills "should provide that hereafter at least one member of the Interstate Commerce Commission have a special knowledge of motor transportation." Our correspondent doesn't seem to be aware that, from all reports, the railroads for years have been urging the appointment of commissioners with a special knowledge of rail transportation.

And a Good Time Was Had . . .

Recent visitors whom we enjoyed were: W. B. Rayburn, manager, national sales division of Federal Motor Truck Co.; Norman Roblee, Philadelphia city sales manager, International Harvester Co., and J. F. Ransone, until recently Brockway territorial representative, of Clarksburg, W. Va., who dropped in together; E. C. Wood, transportation superintendent, Pacific Gas & Electric Co., San Francisco, Calif., and T. L. Preble, Pierce-Arrow truck sales manager, who also came arm-in-arm; and Tom Snyder, national-truck-association-promoter-extraordinary and general manager of Central Union Terminals, Indianapolis, who visited via the telephone on his way through.

Humph! Where's the Tension?

To our suggestion that he send us something more than barometric readings from his beloved "sunny California" Ed Wood responded with a clipping from the Detroit News picturing him in the edifying company of Ed Lowe, vice-president of the Handy Governor Corp. (howdy, Ed!) and Bob Burnett, of the S.A.E. staff who makes meetings tick properly. The caption over the cut was "Delegates to S.A.E. Convention Relax a Bit." We got a right hearty laugh out of that "a Bit." Humph! indeed!—G. T. H.

Oil Change Fuss a Nightmare

But Chassis Lubrication With Its Varying Parts Schedules and Special Oil and Grease Requirements is a One-Way Ticket to a Padded Cell

By William E. Frazer

Fleet Operator

The opinions expressed in this discussion are so different from those heretofore published on the controversial subject of oil change that every one having anything whatever to do with a motor truck should read it for the balance it will give his own thinking.

The opinions are the product of experience and are those of a fleet operator who, you won't need to be told if you read his article "Fleet Operators Are Boiling in Oil" in last month's issue, is not connected with an oil company.

THE matter of oil change periods, in my opinion, receives attention out of all proportion to its value. For our own part, we change oil in light units with oil filters every 2000 miles; light units without filters, 1000 miles; trucks without cleaners, 1000 miles. We have no heavy truck units equipped with oil filters. These change periods are subject to variation if heavy equipment happens to be working in the mountains, where steady grades make up the most mileage, or in open dusty country such as we have in certain portions of our operating territory.

We find no fault with this schedule; the cost is not prohibitive. Yet, we have selected certain units of the light car field and run them from 3000 to 5000 miles without changing the oil with no untoward results. And I am of the opinion that we would still achieve good results if we didn't change for 10,000 or 20,000 miles. It has been definitely proved that the difference in engine wear between a car which changed oil religiously at very small mileage periods, and one which changed at 10 times that mileage lapse, was not enough to worry about.

An important factor in the changing periods is the life at which the operator retires his vehicles. Right now the practice of retiring light units at 45,000 miles is gaining considerable favor, where those units travel in the neighborhood of 12,000 miles per year. This is due, principally, to obsolescence in this day of rapid advancements in the automotive field. A four-year-old car is practically outmoded. Why, then, get all steamed up about oil change periods, when your vehicle is going to the junk heap in 45,000 miles, and when it has been proved by micrometric measurements that there is but a very minute variation in engine wear whether oil is changed at 1000 or 10,000 miles? This, of course, is contingent upon the use of a reasonably good oil.

Presumably, we change oil to get the grit, metallic particles from engine wear, old oil with heavy ends, carbon residue out of the motor's interior, and to get fresh, new oil into the working parts. The joker, however, is that merely draining the crankcase does not completely clean the crankcase unless we remove the case and flush it. Otherwise we've got a sump full of dirt when we pour in the new oil, and a few revolutions of the engine find our new oil contaminated with a part of this sump sludge.

If, however, we have expensive heavy truck units in our fleet, and we expect to run these units for, say, 100,000 or 120,000 miles, then we might find it desirable to be slightly more careful of our oil change periods, for the extended mileage limitation gives more opportunity for engine wear to necessitate more repair labor expense. I say we "might," because I still am of the opinion that this is entirely up to the individual operator, to be met as he sees fit, compatible with operating conditions as he finds them, and not to be set as a universal standard by scientists and their scientific apparatus. The whole business of frequent oil changes has been instigated, of course, by the producers of lubricants; it is a business proposition with them, though it is not necessary that fleet operators should be led into such frequent changes against their will and their better judgment.

Let's reduce it to a matter of cost, for cost is an understandable basis. During the 45,000-mile life of a light unit (I'll just pick one at random from our own fleet, the oil consumption of which is about 800 miles per gal.), if we change oil every 2000 miles, we will supply about 110 qt. of oil on changes, and about 220 additional quarts to maintain proper oil level, making a total of 330 qt. or 82½ gal. Say our price is 60 cents per gal. Our cylinder oil costs us $49.20 for the life of the car. Add to this the labor of 22 oil changes and the figure runs well into $60.

Now, let's change oil every 10,000

JUST

miles or, say, five changes in 45,000 miles. That's 25 qt., plus about 216 qt. for maintaining the oil level, which makes a total of about 60 gal. This, at the same price, is $36, and labor on five changes won't bring the figure over $40. There is a difference of $20 per car for its life. Now, either way you make your changes, granting you're using a fair grade of oil, you will not have over one rebore in the life of the car. Under average conditions, with the 10,000-mile change, you will have one more carbon cleaning and valve grind, perhaps. I have found that under average conditions rings are pretty generally installed at from 15,000 to 17,000 miles, under varying schedules of oil change periods, so you will not have any more ring work in the life of a car if you change at 10,000 than if you change at 2000 miles. But here again local operating conditions will have considerable direct bearing on results—the example is only given for average conditions.

Another confliction in lubrication is the miles per gallon of oil. Our oil records of two light units of similar age in months, elapsed mileage and overall mechanical efficiency, to all appearances, but performing different types of work, show that one gives 490 m.p.g., the other 979 m.p.g. Two coupes of the same make as the above units, a year or so older than the pickups mentioned above, give us 522 m.p.g. and 749 m.p.g. respectively performing lighter work. These conflictions do not serve any purpose except to point out that it is useless to waste too much time in worrying about oil consumption, as long as the consumption is not radically high. In other words, if you have a fleet of 50 cars of the same make, there's no point in expecting them all to have the same oil consumption.

Chassis lubrication is the one important item of the entire lubrication story about which something should be done. With 15 principal chassis units which require lubrication, requiring suitable grades of lubricant, considering loads, bearings types, etc., we have got something to get gray hairs over. Not only must we contend with anywhere from six to 10 different kinds of grease or oil for chassis lubrication, but we must also swallow the sword of as many or more different lubrication schedules for the various chassis parts.

In our own fleet we grease some chassis at 500 miles; some we grease at weekly intervals, depending on the type of equipment and nature of the work, and some at 750 miles. This requires extensive record-keeping on a fleet even as small as 178 vehicles. Under unusual operating conditions, we are required to revise our schedules somewhat with respect to these certain units.

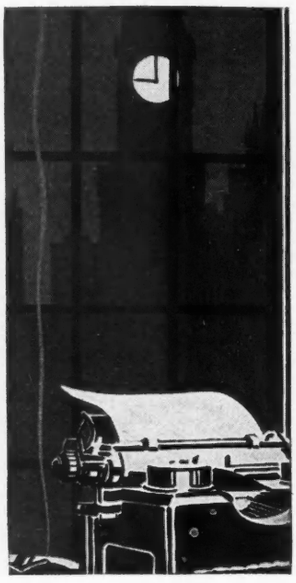
The fault here seems to lie almost wholly in engineering design. Close study, it would appear, on the part of the manufacturers' engineers could eliminate most of this grief. We should be able to lubricate chassis with not more than three or four kinds of grease or oils. Certainly, the arts in automotive vehicle design are sufficiently advanced that this would be possible.

Improvements in water pump design and universal joint design or method of lubricating, steering gear and clutch, would all be a big help in reducing the greasing problems to something more simple and economic. We have too large a variety of greases required.

If the fleet operator listens to ALL of the advice that is handed out to him, he is going to find himself in deep water. In our own fleet operations, we have taken

TURN TO PAGE 50, PLEASE

AFTER



HOURS

Mr. Couzens Tries Hard to Be Fair

◆The most dangerous aspect of the bus and truck interstate regulatory bill introduced in the United States Senate by Senator Couzens, of Michigan, is the fact that Senator Couzens is its sponsor. No one dares say that the millionaire Republican from Michigan is under the influence of railroad interests and that therefore his proposed measure is intended primarily to protect the railroads against their gas-consuming competitors.

Senator Couzens' legislative record, if scrutinized, will show that he has no more sympathy for railroads, as such, than he has for the automotive industry. Which means that sympathy simply does not exist, because ever since he began his political career he has been a radical, and all so-called interests have had sufficient cause not to look upon him as a devoted ally. If Mr. Couzens were inclined to be sympathetic in his legislative life, the automotive industry might be expected to have first call, because after all it was in the automotive industry that the Senator from Michigan was able to net a reputed $39,000,000 or so from a cash investment of $900 in the original Ford Motor Co.

◆Decidedly, then, his motives in including trucks in his regulatory measure were pure. His convictions were not those of a fanatic, and consequently neither were his conclusions. In drawing up his bill, we believe he made a sincere attempt to avoid ham-stringing provisions; witness the absence of rate regulating and proof of public convenience and necessity stipulations. Even our prejudiced eyes can see a commendable effort on Mr. Couzens' part to forge an instrument that would protect common carrier truckers from common carriers truckers, shield common carriers from contract carriers, and safeguard the public against both.

The effort, admittedly, is there but the result is debatable. There is, in fact, a strong possibility that the weapon, for all Mr. Couzens' attempt at fairness, may prove to be an India rubber sword that collapses beneath its protecting thrust.

In the first place, wisely sensing that the common carrier cannot be regulated fairly unless his severest competitor—the contract carrier—is likewise regulated, Mr. Couzens wedded the two in his bill under the title "motor carrier." The bill, therefore, to be acceptable even to the gentleman from Michigan must not, in the event of its passage, divorce the contract carrier. To what extent Mr. Couzens was aware that he was flirting with the domestic relations court when he drew up his measure is a matter for conjecture, but he certainly must have known that in all litigation to date involving contract carriers, the courts have upheld the right of individuals to enter into private contract. The latest decision of the United States Supreme Court, in the case of Smith vs. Calhoun, decreeing the regulation of a contract carrier a constitutional violation, seems to be enough to cancel all of Mr. Couzens' effort at fairness and definitely to earmark the bill for cold storage.

◆There are two other provisions which may give the bill a helpful shove into oblivion. The first requires the establishment of size and weight restrictions by the Interstate Commerce Commission, and the second stipulates that "no operator of any motor vehicle (common and contract) shall be permitted to remain on duty for a longer period than eight consecutive hours, when he shall be relieved and not permitted to go on duty again until he has had at least eight consecutive hours off duty."

The first encounters at once the opposition of public service commissioners in practically every state in the Union. Weight and size restrictions are totally lacking in uniformity and set up on such an individual basis by states that for the federal government to lay down its own set of restrictions would be to break down the police powers of the states. The industry and operators, understand, want reasonable national uniformity of weights and sizes. But not so the states. They have argued so far, that restrictions are bound to differ because there is a difference among states in regard to manner and material of highway construction, widths of highways, and nature and density of traffic. Mr. Couzens, also wisely, has not inserted any specific weights and sizes into his bill, merely contenting himself with granting the necessary authority to the I. C. C. But unless Mr. Couzens himself has magic figures with which to hypnotize states into passive compliance this provision doesn't have the chance of a Chinaman in Chapei.

The second provision illustrates how difficult the Senator from Michigan must have found the task of being fair to all concerned. In providing for the regulation of hours of employment he strove obviously to be fair to railroads, to truck drivers and to the public. The fact that by so doing he was unfair to the motor truck as an agency of transportation he probably excused as one of the unfortunate but necessary evils of compromise. But the excuse will not be countenanced by state public service commissioners. Their experience has shown them that conditions of employment in the operation of motor trucks are not sufficiently similar to those in the operation of railroads to make it practicable or desirable that hours of service be placed by law on a similar basis.

◆On these accounts the dangerous aspect we spoke of originally, alone will not be sufficient to insure the passage of the bill by Congress. And the Senator from Michigan is not likely to urge its passage unless the spirit of fairness which motivated him in the beginning deserts him in the hearings on the bill.

These hearings on Mr. Couzens' well-meaning effort should have at least one very beneficial effect: the evidence should impress upon members of Congress the need for actually studying motor trucking in all its ramifications before attempting to improve it by regulation. If they investigate thoroughly enough they will be reminded more than once of the saying that if you scratch a Russian you find a Tartar. Because the regulatory experience of various states has shown that if you scratch a common carrier trucker you find a contract carrier, and if you scratch a contract carrier you find a private owner—and private owners won't tolerate scratching.—G.T.H.

PASSENGER CARS PRICED AS LOW AS **$475**

TRUCK CHASSIS PRICED AS LOW AS **$355**

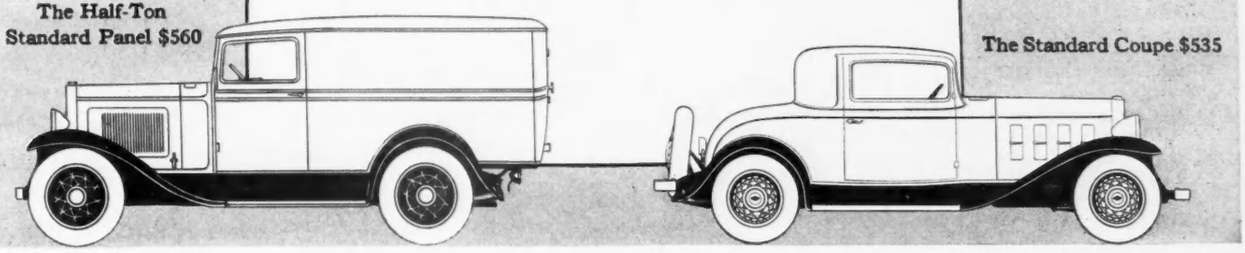
½-TON TRUCKS WITH BODIES PRICED AS LOW AS **$440**

1½-TON TRUCKS WITH BODIES PRICED AS LOW AS **$670**

All prices f. o. b. Flint, Michigan. Special equipment extra. Low delivered prices and easy G. M. A. C. terms.

The Half-Ton Standard Panel $560

The Standard Coupe $535



Chevrolet economy

STARTS ON THE DAY OF PURCHASE

The unexcelled economy which has made Chevrolet the first choice of so many business firms, is an *all-inclusive* economy. It makes itself felt in every phase of Chevrolet's operation, performance, upkeep and maintenance. It extends throughout the long period of Chevrolet ownership. And *it starts on the very day you purchase a Chevrolet!* The prices on both Chevrolet passenger cars and trucks are among the very lowest in today's automotive market. You can buy a Chevrolet Six for as little as $475, f. o. b. Flint, Michigan. On the truck line, reductions that range from $10 to as high as $65 have recently been announced. They make Chevrolet trucks, more than ever, the ones to buy for lowest transportation costs.

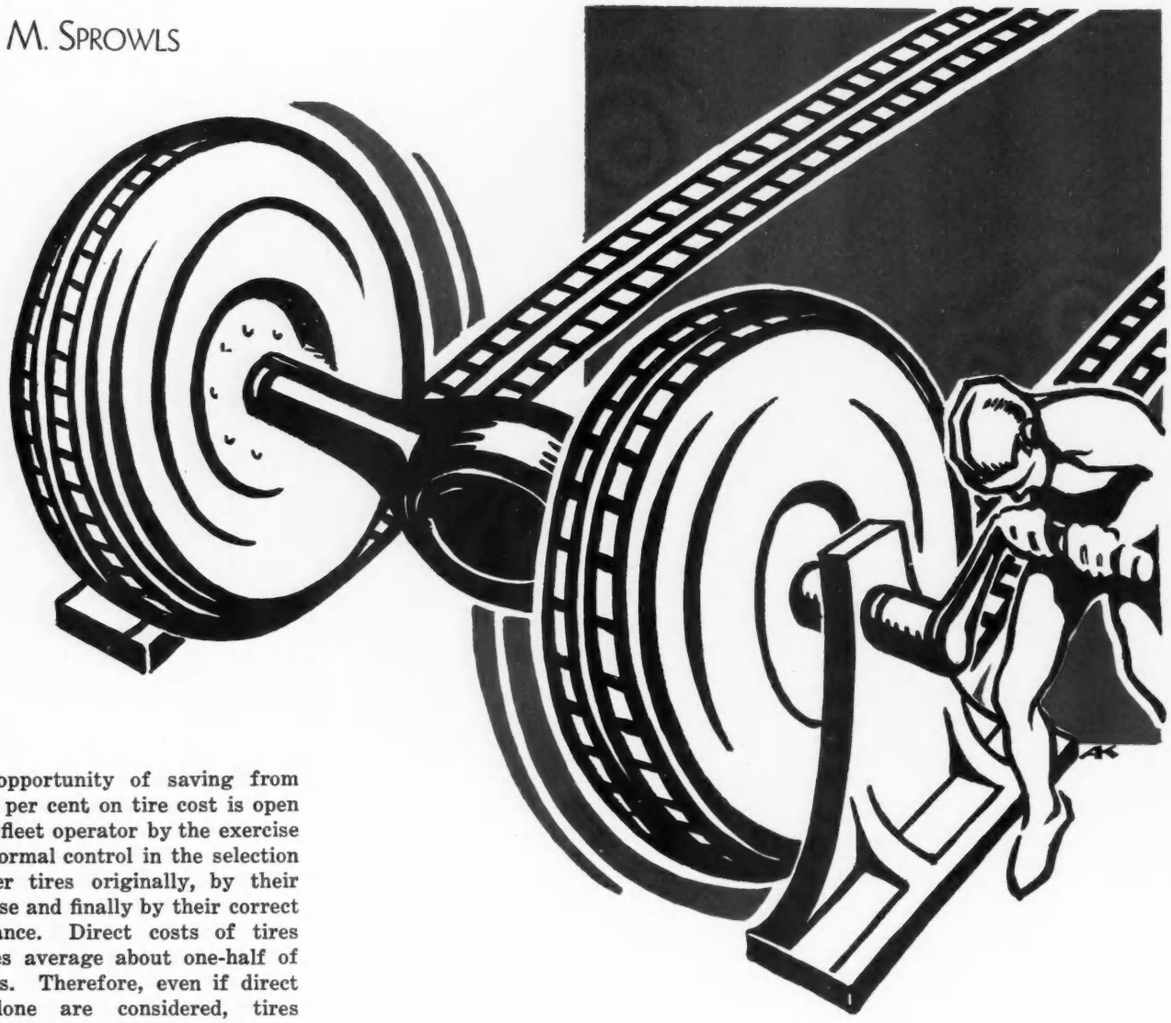
CHEVROLET MOTOR CO., DETROIT, MICH. DIVISION OF GENERAL MOTORS

CHEVROLET

SIX-CYLINDER PASSENGER CARS AND TRUCKS

MAKE TIRES UNWIND 50% MORE MILEAGE

By G. M. SPROWLS

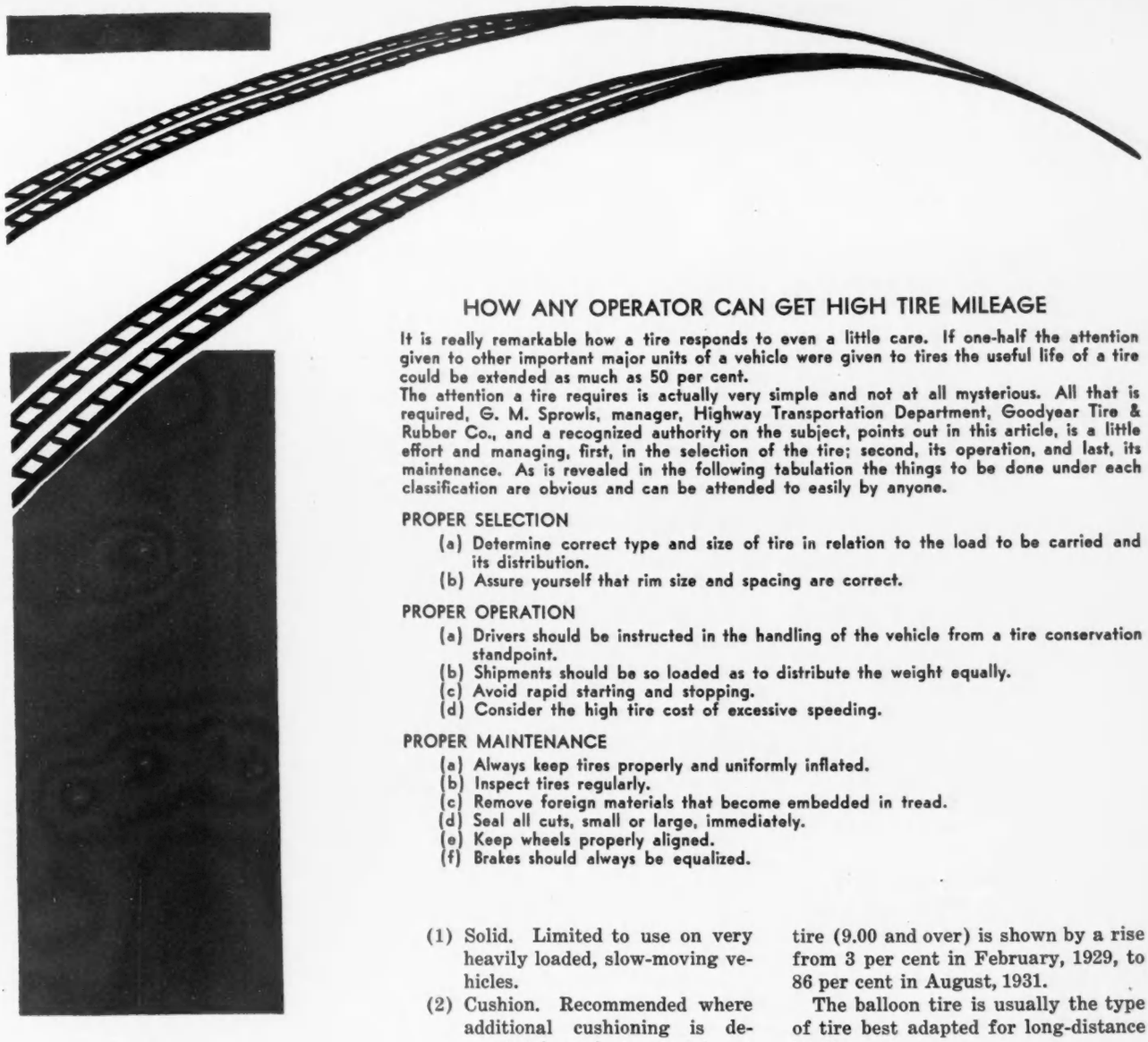


THE opportunity of saving from 15 to 50 per cent on tire cost is open to every fleet operator by the exercise of just normal control in the selection of proper tires originally, by their correct use and finally by their correct maintenance. Direct costs of tires and tubes average about one-half of fuel costs. Therefore, even if direct costs alone are considered, tires should receive careful attention. In an indirect way, however, tires have a considerable bearing on repairs and reduction of costly repairs.

It is really surprising how many truck operators give considerable time and study to the various design features and dimensions of different chassis before purchase and yet give scarcely a thought to the tire equipment, whether it be of the type best adapted to the service in which the truck will be used and the size most economical for the load to be carried.

The fact that tires are a replaceable item may account in part for this attitude. The prospective purchaser may think that if the original tires do not give satisfactory service, another type or size can be applied. This can usually be done, but it often means expenditure for new rims or wheel work and possible body alteration at the time of purchase. All of this expense can be avoided by proper specifications at the time of purchase.

In selecting a vehicle, the operator should be sure to have tires of ample carrying capacity for the wheel loads they must carry. Correct wheel load is important. Too often the payload is added to the empty weight of the truck and body, and the total divided by the number of tires in order to find the load per tire. Such a procedure usually results in overloading some of the tires and underloading others. The load on the rear axle may vary as much as 20 per cent, depending upon the distribution of the payload. Overloading of tires and of roads has some similar characteristics. The result of such abuse is not in either case immediately apparent. An overloaded road does not usually give way completely with its first overloading un-



HOW ANY OPERATOR CAN GET HIGH TIRE MILEAGE

It is really remarkable how a tire responds to even a little care. If one-half the attention given to other important major units of a vehicle were given to tires the useful life of a tire could be extended as much as 50 per cent.

The attention a tire requires is actually very simple and not at all mysterious. All that is required, G. M. Sprowls, manager, Highway Transportation Department, Goodyear Tire & Rubber Co., and a recognized authority on the subject, points out in this article, is a little effort and managing, first, in the selection of the tire; second, its operation, and last, its maintenance. As is revealed in the following tabulation the things to be done under each classification are obvious and can be attended to easily by anyone.

PROPER SELECTION

(a) Determine correct type and size of tire in relation to the load to be carried and its distribution.
(b) Assure yourself that rim size and spacing are correct.

PROPER OPERATION

(a) Drivers should be instructed in the handling of the vehicle from a tire conservation standpoint.
(b) Shipments should be so loaded as to distribute the weight equally.
(c) Avoid rapid starting and stopping.
(d) Consider the high tire cost of excessive speeding.

PROPER MAINTENANCE

(a) Always keep tires properly and uniformly inflated.
(b) Inspect tires regularly.
(c) Remove foreign materials that become embedded in tread.
(d) Seal all cuts, small or large, immediately.
(e) Keep wheels properly aligned.
(f) Brakes should always be equalized.

less it be of extreme proportions. Likewise overloaded tires will continue to run for a time. Overloading is a costly practice in either roads or tires.

For example, take the 9.00-22 tire. Under its recommended load of 3500 lb., the 9.00-22 tire will deliver its normal mileage. If, however, it is compelled to carry a 500-lb. overload, it will deliver 23 per cent below normal, or if 500 lb. underload, it will deliver 35 per cent above normal. If 20,000 miles is considered normal for a particular service, this would mean 27,000 for the 3000-lb. loading and 15,400 for the 4000-lb. loading, a 58 per cent differential in mileage for a one-third decrease in load.

Four types of tires are now available for trucking service, each of which, if used within the limitations for which it is designed, will give satisfactory service and lowest cost per mile. The four types are:

(1) Solid. Limited to use on very heavily loaded, slow-moving vehicles.
(2) Cushion. Recommended where additional cushioning is demanded but where speed is not high or sustained.
(3) High-pressure pneumatic.
(4) Balloon. Pneumatic tires are recommended where high and sustained speeds, maximum traction and cushioning are required.

No substitute for air has ever been found which will provide equal resiliency. What high-pressure tires do well, balloon tires of adequate size fitted to sufficiently wide rims will do equally well or better. Among the advantages of balloon tires are the following: Reduced vehicle depreciation, lower operating costs, increased ton-mile capacity, safer driving, reduced tire maintenance, etc.

The trend for the past ten years has been decidedly toward the pneumatic tire. In 1921, 29 per cent of the truck output of the country was on other than pneumatic tires. This percentage was reduced to 3.6 in 1930. The increase in popularity of the balloon tire (9.00 and over) is shown by a rise from 3 per cent in February, 1929, to 86 per cent in August, 1931.

The balloon tire is usually the type of tire best adapted for long-distance hauling.

Another factor which should receive consideration in selecting the type of tire is the amount of cushioning desired.

It should be noted that impact reactions of new and worn solids and cushion tires increase with increasing speed and become excessive at speeds in excess of 25 m.p.h. under the conditions of this test. The impact experienced with high-pressure tires reached a maximum at about 35 m.p.h. and was roughly equivalent to that given by a new solid tire at about 16 m.p.h. A balloon tire can be driven at any speed within range of these tests and not exceed the impact from a new solid at about 8 m.p.h. or a high-pressure tire at about 20 m.p.h. It can readily be seen that the balloon has the greatest cushioning ability.

In the selection of the proper type and size of tire, consideration should also be given to the rims. Tires give best service when they are used on

the rim for which they were designed. The original rim equipment of a vehicle should be of the size and spacing to permit of subsequent oversizing. Two reasons dictate this practice, namely, oversizing a tire on a given rim somewhat reduces its air volume and its carrying capacity, and it eliminates the possibility of oversizing if at some future time the type of service should change.

After the purchase of the vehicle comes the problem of operating and maintenance. Under operating should be considered such care and attention as the driver may give the tires, while in actual service. How important the driver is in tire conservation is indicated by the following experience of a large fleet operator engaged in retail grocery delivery work. Careful records of two vehicles of the same size and make purchased at the same time and operating over similar routes showed that one driver consistently secured more than twice as much tire mileage as the other. The reason given for the wide difference was that the one driver would go at full speed to a delivery point, apply his brakes suddenly, and be almost at the rear of the house before the truck had stopped. Of course this may be a slight exaggeration, but the mileages were facts and the cause of the difference no secret.

Driver Factor

The driver is indeed a very important factor in tire conservation. Many operators have found it to their advantage to consider tires in their bonus or merit systems. Anything which will give the driver an incentive to improve his tire mileage will yield desirable results. One operator increased his tire mileage considerably by offering a bonus of a dollar for every thousand miles a tire gave over a predetermined amount.

A system which may be called the "Pyramid Penalty System" has practically eliminated abuse for another large operator in the northwest. Penalties of different values are assigned to different offenses. Clerical errors for example, rate 10 miles. The first offense of running a tire flat counts 100 miles. Each succeeding occurrence doubles the value of the penalty; the second time 200 miles, third 400 miles and so on. Until the penalty miles against a driver have reached 400, they serve only as a warning. He is merely notified as soon as the penalty is listed against him. When penalty miles reach 400, the driver is laid off without pay for the number of trips necessary to make 400 miles. Recurring repetition of a serious offense will result in the driver practically discharging himself.

The following are some of the more common tire abuses which a driver can wholly or largely eliminate:

1. Running tires flat.
2. Driving over sharp objects which would cut tires.
3. Failing to report accidents which may put wheels out of alignment.
4. Uneven or too rapid acceleration or deceleration.
5. Running at excessively high speed for a part of a trip in order to arrive ahead of time and thus to have some leisure for himself.
6. Running with one of two dual tires partially off the road, throwing undue burden on the other.
7. Unequal distribution of load, so that no tire will carry more than its share.

It can easily be demonstrated by actual tests that a truck, even while traveling at high speed when a cut or puncture occurs, can be brought to a stop by normal braking (not an emergency stop) before any visible injury is done to the casing. Any driver knows when a tire is going flat on a front wheel in sufficient time to apply the brakes and stop the vehicle before injury is done to the tire. It is admittedly more difficult to tell when one of the rear dual tires is going flat and even more so, if not impossible, on trailers. Mechanical and electrical devices are now in process of development which will warn the driver when the inflation pressure in any tire is reduced to a predetermined amount.

A driver usually knows when he hits an object hard enough to throw the front wheels out of alignment. Through fear of being censured or for some other reason, he sometimes fails to report such incidents with the result that the tires may suffer from excessive tread wear.

Driving at high speed greatly reduces tire mileage. Speed affects tire life in two ways, first by increasing slippage, which is an outstanding cause of excessive tread wear, and secondly by raising the temperature of the tire.

Uniform Pressure

Probably the most essential requirement of tire maintenance is uniform inflation pressure as called for by the size of tires and load carried. The standards of the industry are those adopted by the Tire and Rim Association. Facilities should be provided for quick and easy inflation. Insufficient volume or pressure in air storage tanks is to be avoided. If air compressors pump oil, a baffle or strainer tank should be provided to prevent oil from being carried into the tubes. The reason for this is that oil causes deterioration of rubber. Accurate means of checking inflation pressures should be provided. After long and hard service, gages are apt to give incorrect readings and should be checked at regular intervals against a master or standard gage.

Maintenance of regular inspection of tires is highly desirable. The removal of foreign material from cuts will often prevent expensive repairs or early failures. A small hand pressure gun is now on the market with which small tread cuts can be filled with a specially prepared rubber compound. This treatment will prevent moisture, sand and grit from getting down to the carcass and causing ply separation which may later result in tire failure. This type of repair should be limited to small cuts or nail holes. Large cuts should be taken care of by vulcanizing.

Steering Geometry

A combination of toe-in, camber, and caster, which will give easy steering and minimum tire slippage is desirable. Excessive toe-in is the most serious fault as far as tread wear is concerned. Confining toe-in to a maximum of 3/16 in. on high-pressure tires and ⅛ in. on balloons will prevent excessive wear from this cause.

Grabbing or unequalized brakes cause excessive wear. Protruding bolts, bent fenders or other obstructions rubbing against any of the tires should be removed. Sometimes such abrasion occurs with heavy load or with unusual sway of the body.

Changing tires from one position to another to compensate for type of wear or other conditions is very helpful. If front tires show marked camber wear on one side and the camber trouble cannot be immediately corrected, considerable additional mileage may be secured by reversing the tires on the same wheels. Under certain types of service, a fairly well worn tire used on the inside wheel position of a dual mounting will result in equalizing the load carried by both tires with a resulting increase in miles.

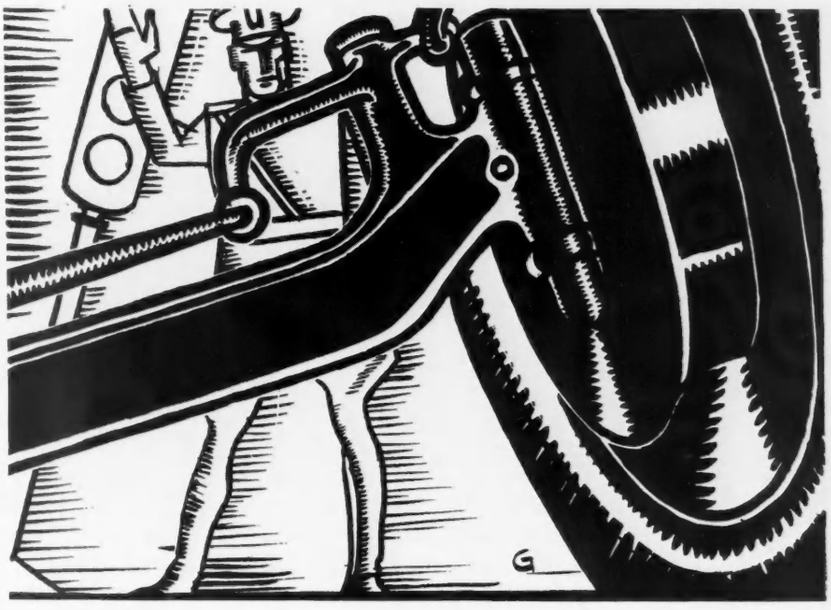
Without records of tire mileage, improvement may not be recognized. In addition, the study of individual tire mileages often is the means of locating trouble that is reducing the average. Therefore, the maintenance of a simple and accurate tire mileage record system is highly advisable. Such a system should tell:

1. What mileage each tire gives.
2. What tire costs are.
3. Comparative figures for various makes, sizes and types of tires.
4. Comparative tire costs on various vehicles.
5. Location and degree of bad operating conditions which adversely affect tire mileage.
6. Actual inventory and location of all tires in the possession of the company both in and out of service.

MANY A BAD BREAK MAY BE LAID TO BAD BRAKES

To Run Trucks With Defective Brakes Is to Flirt With Needless Damages and High Costs

By MARTIN J. KOITZSCH



WHEN only 46 per cent of 2497 trucks from 31 crack Chicago fleets can toe the mark after two brake tests, even though the safety limit prescribed may have been higher than usually required, then it is high time for truck men generally to sit up, take notice and do something about brakes, especially when it is considered that the trucks tested were operated by men proud of their equipment and maintenance systems, and that these same trucks represented but a very small cross-section of the 3,378,000 trucks running over the highways of the country. If 46 per cent is the index of a select group, what must the national index be?

This very illuminating bit of information is drawn from the analysis of a truck lane test held in Chicago last summer under the auspices of the Chicago Safety Council and through the helpful cooperation of 31 well-known fleet operators. While the test was conducted in the interest of safety, the mechanical defects disclosed would seem to indicate that the examination rather was designed in the interest of economical operation.

The trucks passing through the lane were examined as to the condition of 10 items of equipment, all of which, of course, bore directly on safety. As revealed in the accompanying summary, only 11 per cent successfully survived the gamut on all 10 points the first trip through. Returning the second time, after repairs and adjustments, a second batch of only 13 per cent won an okay. The remainder, 76 per cent, were rejected and not returned.

Shop Equipment and Management is the Answer

Summary of truck lane inspection recently held in Chicago.

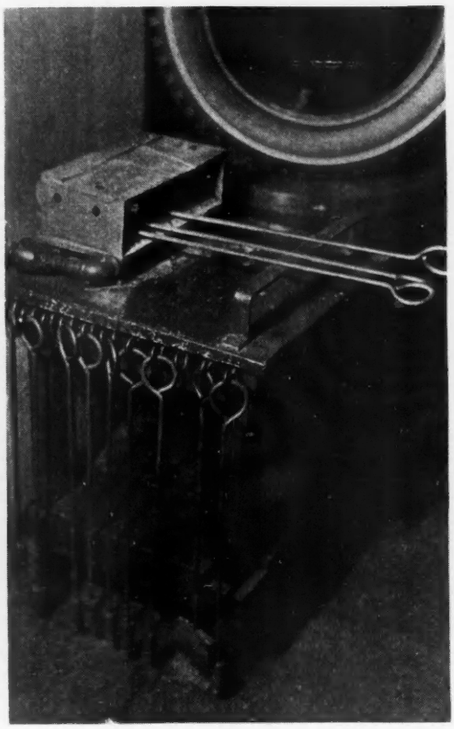
	Totals	% of total through lane	% of final rejects
Total trucks tested	2479	100	..
O.K. first time	280	11	..
Repaired and returned for O.K.	318	13	..
Total originally rejected	2199	89	..
Total rejected and not returned	1881	76	..
Rejected for: Brakes	1329	54	70
Wheel alignment	622	25	33
Stop lights	634	25	34
Parking lights	104	04	05
Tail lights	727	30	39
Steering wheel	219	09	11
Windshield wiper	529	21	28
Horn	116	05	06
Rear view mirror	235	10	13
Headlights	427	17	22
Trucks repaired and returned for O.K.	318	..	15

It is interesting to note that the one item of equipment that bears so directly on operating cost and safety was the most prevalent cause for rejection—54 per cent of the trucks examined were blackballed for brake defects. It would seem from this astounding figure that we do not appreciate the costly significance of defective brakes, or in what manner they can quickly send operating costs skyrocketing.

An excellent conception of the tremendous avoidable expense piled on operating costs annually as a result of defective brakes alone can be obtained from accident statistics. Unfortunately records of every accident are not available, but accidents resulting in death and injury are, and these are big enough to permit our statisticians to arrive at some very definite conclusions. Accidents in 1931 resulting in death or injury reached the awful total of 1,000,000 (how many million more non-recorded minor accidents occurred no one knows). More startling still is the annual economic loss due to automo-

TURN TO PAGE 36, PLEASE

1



2

17 Dazzling Ideas

THE transportation department of the Philadelphia Gas Works Co. maintains a record of "achievements," which comprise changes in methods, installation of new shop equipment, test and use of new materials, and general shop improvements. Examination of this record gave clues to all possible shop ideas suitable for this article and facilitated a trip through the shop to determine their relative value to other shop men.

Interest of the company management in every detail of the business is indicated by the formal method of report regarding shop practices, experiments, etc., which all too frequently are unknown outside the shop force. This interest is also disclosed by the existence of general and special rules governing the operation and maintenance of company motor equipment. These rules are revised as changes in type of equipment or operating practice are adopted, and therefore are always up to date.

Ideas which are here presented range from typical shop hints, of which the bracket for holding a flashlight on the anti-freeze solution hose nozzle to prevent overfilling of radiators is an example, to a system of lubrication which reduced the manpower required from 2½ men, figuratively speaking, to one man.

Preventive maintenance is the service policy, supported by scheduled inspection and lubrication. Major repairs are made at the Central Shop, while running repairs and adjustments are made at the branch garages. Heavy machine work is farmed out.

Transportation equipment consists of an interesting variety: bicycles, pneumatic tools, air compressors, trench diggers and backfillers, passenger cars and light deliveries, as well as trucks, and standard and special trailers.

Fig. 1. Spray Booth

The spray booth for complete vehicles is unusually well ventilated and lighted. There is a row of built-in safety electric lights about knee high on each side, covered with wired safety glass and another row at a slight angle at ceiling line. There are also light "windows" at the rear.

Ventilation is provided by a fan in the rear of the room, exhausting air through slots in detachable panels at each rear corner. The entire booth is located in a room devoted to hand and spray painting and no extra precautions are needed to prevent the entrance of dust. Air enters at the front of the booth and moves to the rear fast enough to withdraw spray mist but not fast enough to cause trouble.

Air lines are brought in from the front and there is a rack on each side for the guns.

Fig. 2. Tire Branding Outfit

Most tales of our Western frontier mention branding with hot irons as a means of identifying range animals. None of the pioneers enjoyed the convenience of the tire branding outfit here pictured. It is compact, 24 in. square, branding irons are hung in an orderly row, gas flames heat one or several irons at a time, there is a rack for the iron handles. Although the illustration does not reveal the fact, the branding table is just across the aisle from the tire rack.

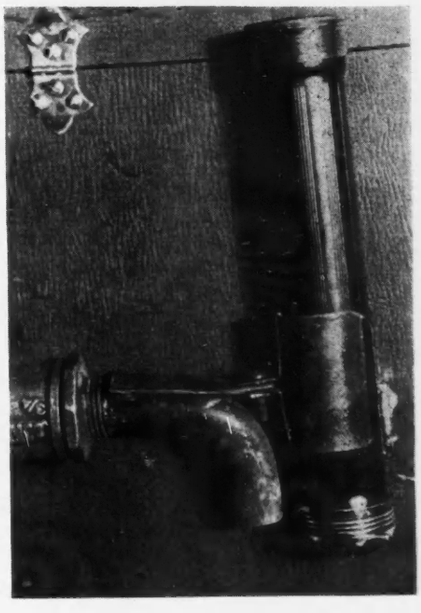
Among the Bright Spots That Lighten Shop Work in Service Station of Phila. Gas Works Co.

1. Spray Booth
2. Tire Branding Outfit
3. Brake Lining Table
4. Saving Anti-freeze
5. White Bearing Puller
6 & 7. Tests for Pneumatic Tools
8 & 9. Wash Rack
10. Night Service Bench
11. Engine Stand on Bench
12. Ford Spring Spreader
13. Mechanic's Work Bench
14. Lubricating System
15. Spray Gun Rack
16. Focusing Chart
17. Hose Hoist

By JAMES W. COTTRELL

FROM A GAS WORKS

3



4

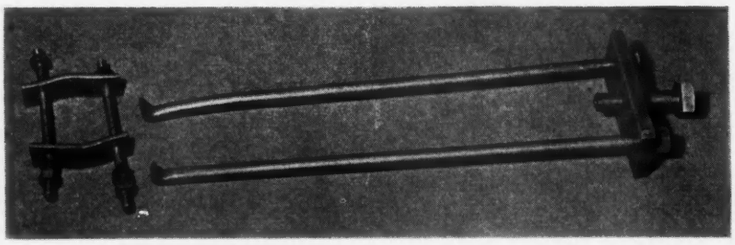
Fig. 3. Brake Lining Table

Without support a roll of brake lining is about as easy to handle as a mattress. A simple rack made of light strips holds the lining in position on this table. It is wide enough for the widest lining used and the bottom section forms a slide for lining on the way to the cutter.

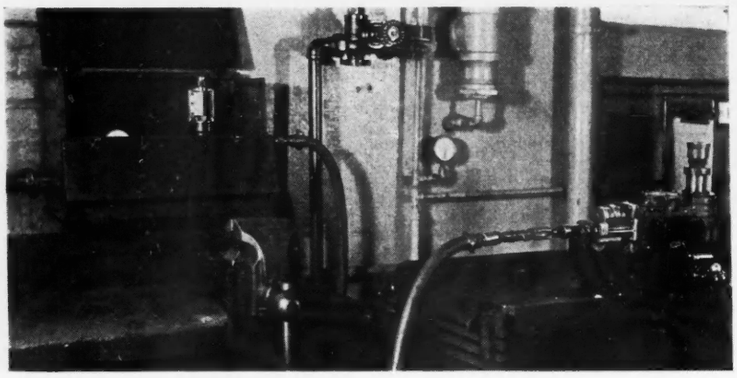
Lengths of lining for various types of brakes are determined by a stop on a metal plate set into the table top. The slide is ruled in inches with special marks for standard linings.

Fig. 4. Saving Anti-freeze

During the winter season the night man checks height of radiator solution in each vehicle. He fills radiators from a gasoline buggy which he moves about the garage carrying water and anti-freeze in proper proportions. It is difficult to see the solution level down in the radiator filler opening. A bracket of sheet metal on the nozzle carries a flashlight throwing a small, but bright, beam on the liquid level. This plan saves time and solution.

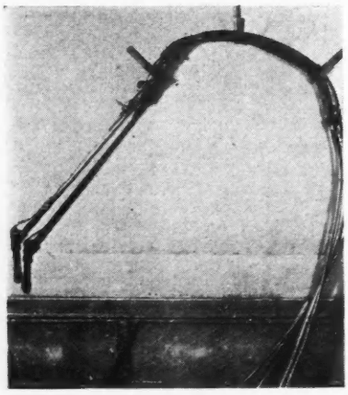


5

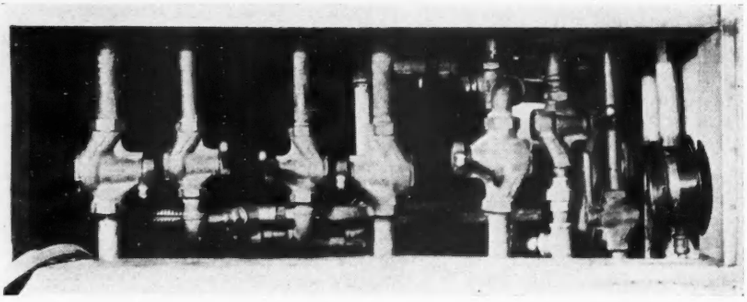


6

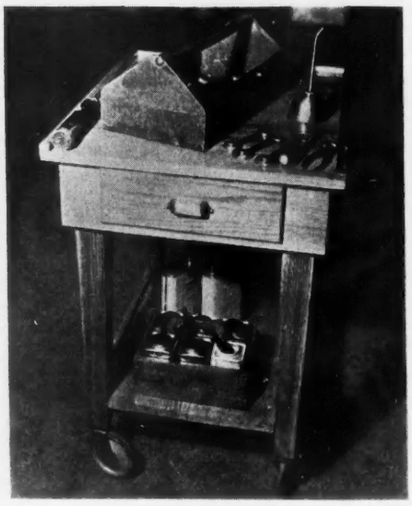
7



8



9



10

placed between the ends of two work benches where it is out of the way.

Fig. 5. White Bearing Puller

The puller for bearings on shafts of three White trucks is made of a heavy cross bar threaded for a set screw and two holes for the long hooks. To keep the hooks in place a clamp is used which is composed of two long studs and two curved side bars.

Figs. 6 and 7. Tests for Pneumatic Tools

Shop tests have been devised for all of the pneumatic tools used by outside crews.

After a tool is overhauled it is fastened in place on the bench in a vise and operated under power. Air for the test is supplied from shop lines through a pressure-regulating valve which maintains uniform pressure, which is shown by an accurate gage on the tool side of the regulator.

Tampers and similar tools are given another test, which simulates actual service. They are allowed to "dance" on a thick piece of rubber at the bottom of a section of 12-in. pipe 12 in. high, fastened to a 3-in. plank, Fig. 7. This testing device is

Figs. 8 and 9. Wash Rack

The wash rack in this shop is used not only for routine washing but for thorough cleaning in preparation for painting. It is of the drive-through type with both ends open, is equipped with a power hoist and is lighted by built-in wall lights like a spray booth.

Two unusual features are revealed on close inspection. The first is the fact that there are no unsightly pipes, valves and fittings on the side wall, in this case a partition. The secret is an opening and door in the partition which cover all of the valves. Fig. 9. Valves are of quick-opening variety.

A kerosene nozzle, shop-made, cleans chassis or body thoroughly when necessary. Two hose lines are carried to the nozzle, the water line from the high pressure pump being controlled by a conventional self-closing valve and the other carrying kerosene is controlled by a stopcock.

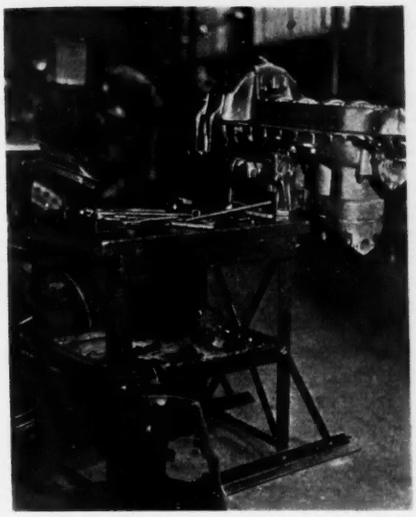
Fig. 10. Night Service Bench

A special bench with large easy rolling rubber-tired casters is used for quick repairs in the garage at night. With large floor area to cover, ease of movement is desirable.

The top has a strip of wood about three sides to hold tools and parts in place. Tools are carried in drawers, one at each end, and in a tool tray. On shelf are six paint touch-up cans.

Fig. 11. Engine Stand On Bench

A portable work bench is used for work on Model T Ford engines. It is strongly built of angle iron and carries an engine stand on one end. This plan saves moving the engine about after removal from the frame.



11

Fig. 12. Ford Spring Spreader

The spreader made in this shop has a guide-brace for each of the threaded and pointed members which apply pressure to the spring ends. The guide is made of a section of bar stock with a 45-degree twist in each side and with ends bent over at right angles. The base, clearly shown in the photograph, is welded throughout.

Fig. 13. Mechanic's Work Bench

Each mechanic is assigned a work space at one of the wall type benches. The most conspicuous feature is a rack, made of ⅛-in. iron pipe and fittings, carrying his name on a board, a letter board and spring clamp for holding work orders and other papers, an electric flashlight and a loop for the extension cord and lamp. Below it are two oil cans on holders.

Beside the vise a steel plate is set into and flush with the table top to provide a hard surface for the many pounding jobs frequently performed on vise slides, in the absence of such plates. Other equipment includes a locked tool drawer, floor creeper, waste can and a large wood utility box.

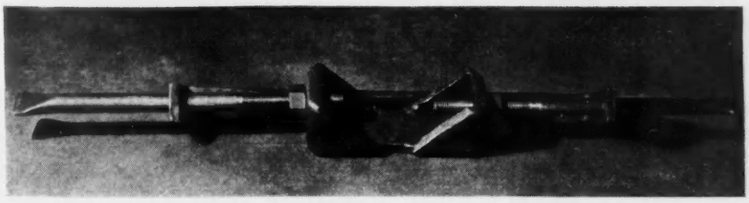
Fig. 14. Lubricating System

Labor time for routine lubrication of vehicles in the fleet was reduced about 60 per cent by changing the system. The first change was in the schedule of lubrication for chassis parts and major units. Instead of checking every point to be lubricated (the sort of job done by independent oiling and greasing stations), the schedule calls for lubricating certain parts at every call, others at longer

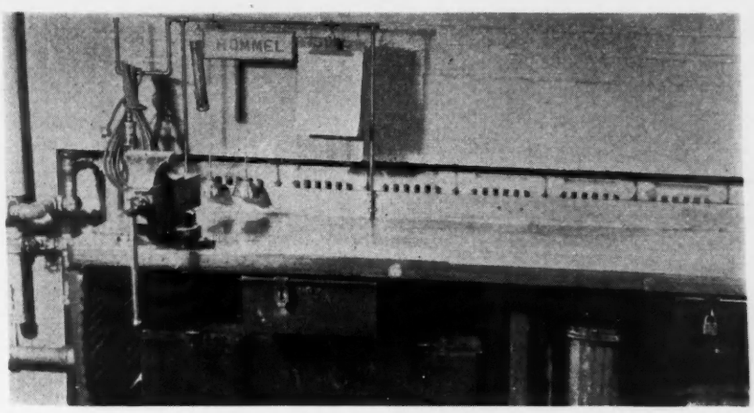
(Turn to page 48 for conclusion)

Fig. 15. Spray Gun Rack

Just at the entrance to the spray booth is the rack for spray guns.



12



13

Cans are stored some distance away. A shelf below the rack holds small tools and parts which otherwise would clutter up the adjoining work bench.

Fig. 16. Focusing Chart

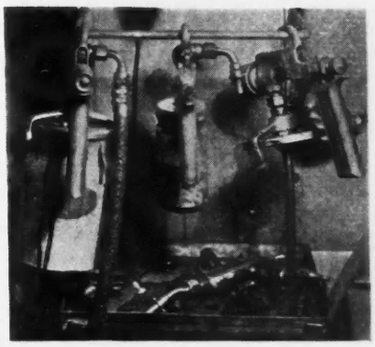
A headlight focusing screen or chart which takes up no floor space when in use or stored is made possible by mounting the adjusting chart on a roll type screen, such as those in store windows or porch screens. It is supported by two brackets from the ceiling and is raised and lowered by two cords.

14

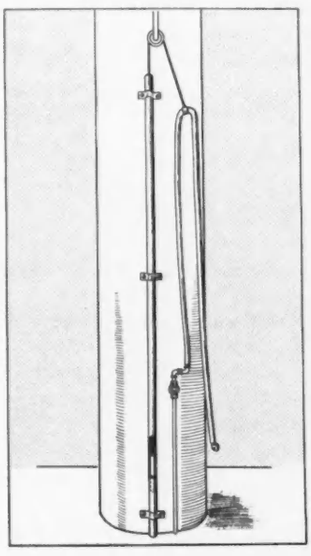
Fig. 17. Hose Hoist

Keeping tire inflation hose off the floor and up where it belongs has worried more than one shop manager. There is no such anxiety in this shop,

(Turn to page 48 for conclusion)

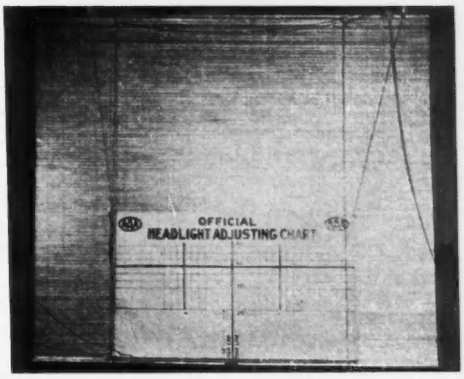


15



16

17



ACCOUNTING RIPS BLINDFOLD FROM BLIND-STAB TRUCKING

And Reveals to the Operator Shortcomings Which Must Be Corrected to Assure Success

By

G. Lloyd Wilson
Professor of Commerce and Transportation, University of Pennsylvania

This is the third installment of a series on Motor Freight Transportation in which all phases of present-day trucking with its many complexities and needs are being discussed.

THE day when motor truck operators could, and sometimes did, keep their accounts in a five-cent copy book or in their hats is gone forever. The freight haulage business has grown, and with it has grown a need for a simple and understandable system of accounts that will show the operator in black and red just where his business is making or losing money; which services are profitable and which unprofitable; which trucks, or routes are "lifters" and which are "leavers," and other data without which no motor trucking business can be conducted intelligently or successfully. Through accounting, definite and accurate information is substituted for vague and inadequate guesswork.

Any system of accounts to be of practical value to motor freight operators must possess several fundamental characteristics:

1. The system must be simple so that it can be kept in working order.

2. It must be adequate so as to permit the accumulation of all of the costs of performing various services which the carriers are called upon to perform.

3. It must permit the application of the cost data accumulated to assist in the fixing of rates to be charged for various services and different traffic.

4. It must present the situation with respect to expenses and revenues in such a way as to enable the executive officer of the carrier to control operations, eliminate services which cost too much to perform in proportion to the revenue earned, seek remuneration traffic where other services show adequate revenue in relation to expenses, and adjust charges for services so as to derive adequate revenue to cover the costs of performing the services.

5. It must present a true picture of the financial condition of the company so that the profit or loss from operation can be definitely and quickly ascertained.

6. It must be sufficiently flexible to be fitted to the special needs of the particular service in which the carrier is engaged.

The first step in any system of accounting for motor truck operators is to determine and classify the costs of conducting business. These costs must be accumulated from accurate records kept for each vehicle, route or service. The cost data so collected should then be classified according to a uniform system which will enable the operator to apply these costs to the operation of each vehicle, each job or each service.

When these costs are known through the use of a uniform system, the costs which are directly chargeable to one particular service may be segregated from those which are common to the entire operation and which should be pro-rated among all of the vehicles, routes or services of the carrier. A system of classification covering all items of direct vehicle operation and overhead expenses is shown below.

CLASSIFICATION OF EXPENSES

1. DIRECT EXPENSES
   (a) Wages of drivers
   (b) Wages of helpers
   (c) Ferry charges, road tolls, bridge tolls, and similar charges
   (d) Loading and unloading charges, and

TURN TO PAGE 40, PLEASE

NAILING DOWN THE ARGUMENTS AGAINST REPAIR STANDARDS

A Lively Exchange of Ideas In Which Choice Arguments Are Set Up and Knocked Down

By JOSEPH GESCHELIN

To take a big dose of anything—good or bad—just goes "agin" us. Maybe that's why so many men took a poke at the paper which the writer presented at the national meeting of the Society of Automotive Engineers in Detroit. Slightly smaller doses will convince the hard working fleet operator that Repair Service Standards are just like money in the bank to him.

Suppose we do a little trouble-shooting with a copy of COMMERCIAL CAR JOURNAL for February, 1932, which gives the gist of the paper under the title, "Should we use the part or junk it?" The whole thing hinges around a service code consisting of three limits of clearance or wear as follows:

Class 1. Desirable limit giving original factory clearance. Very little of this is available today.

Class 2. Intermediate limit. This is the edge of a danger zone and permits the operator to set his own 'usable' standards in line with his operation.

Class 3. Junking limit. This specifies the condition of wear beyond which it is not safe to operate; also gives depth of case; amount of stock for grinding cylinders, etc.

What's it all about? A. W. Scarratt, of the International Harvester Co., started a train of thought going when he said that since factory tolerances and clearances are already available and in use why have Class 1? That's easy. The dope is available at the factory but not in the service manuals nor in the other data that the shop usually gets. Without it, how do you know what clearance to provide when rebuilding or renewing?

That brings up something very vital to the service organization. We claim (speaking as the mouthpiece for some prominent fleet operators) that there is a woeful waste in rebuilding to clearances which are better than factory specifications. M. D. Munn, of The White Co., checks with us on this. In ever so many shops, some foreman or other individual decides on how the particular unit is to be rebuilt. That's fine, but couldn't the company save money if you worked to a given code so that every job was turned out to about the same clearances and cost about the same?

Some fellows think it's all right to use their own ideas in setting clearances. But look at it this way: when you buy a certain truck you have actually approved the kind of engineering it represents. Then why can't you rely on the truck engineer when it comes to service? Certainly it doesn't seem sound or economical to rebuild clearances closer than the factory builds.

Bachman, of Autocar, brought up something else along the same line. He said that you can't tell much about the quality of a fit just by the fineness of clearance. And he's right. Finish is probably much more important. A good hard wearing surface, with a nice polished finish will run a lot longer even if the fit is not close.

The Class 2 figure is hard to set, but once you get it the service problem is a cinch. For one thing, you can judge whether the part can be reused or replaced at the time the unit is torn down. You can also decide whether it would be safe to let certain parts stay worn or loose until the unit was rebuilt the next time. Again if the truck is serviced for you by some one else, the code will guide the other fellow in doing the job for you in the cheapest way.

The Class 3 clearance is a real bone of contention. Why do so many en-

TURN TO PAGE 50, PLEASE

Many a Bad Break May Be Laid to Bad Brakes

CONTINUED FROM PAGE 29

tive accidents—$2,500,000,000. With this impressive background, the part the defective brake takes in this carnage earns serious contemplation. The convenient way to fix responsibility is through known accident records.

From the available records it appears that vehicular defects are important or a contributing factor in at least 15 per cent of fatal motor accidents. What the percentage for all accidents, minor as well as major, is no one knows. However, if the findings of the Chicago truck lane may be accepted as a conservative estimate of brake condition, then the 54 per cent defective brake record chalked against the trucks inspected has the potentialities of a no small expense bill.

This is how a defective brake can send up operating costs:

(1) Accident repairs, ranging from accordion fenders to major straightening operations and replacements.
(2) Liability and property damages. Insurance policies do not always cover the full amount of the liability nor do they always pay all the losses incurred by an accident.
(3) High insurance premiums because of high accident rating.
(4) The hiring of temporary substitute vehicles.

But the penalty of a defective brake doesn't end with these direct costs; it extends into the very core of the business, attacking company reputation, good-will and service.

Liability damages can be very expensive, and when they are incurred represent a pretty high price for the privilege of operating with defective brakes. In discussing the cost of inadequate brakes Leslie Childs, an Indianapolis attorney, pointed out that one of the easiest ways for a truck owner to become involved in expensive litigation is to permit a vehicle upon the highways with defective brakes. Legal archives contain case after case where judgments against truck owners have turned on the single question of whether or not the brakes of the truck involved in an accident were up to standard. Two illustrations of judicial reasoning on brake matters follow:

The defendant was engaged in operating a line of trucks over a certain route. The driver in the employ of defendant had given notice that the brakes on his truck needed attention, but in the press of business they were neglected at the time. However, the defendant told the driver that the truck should be held for repair upon his return from the trip. The driver never returned. On his way back the truck ran off the road, turned over and injured the driver fatally. Action was brought for damages solely on the latter's negligence in directing the driver to proceed with the truck, after having been notified that the brakes were defective. A judgment of $5,000 was rendered against the defendant. A higher court on appeal affirmed the judgment, saying among firmed the judgment (144 S.E. 611.)

The other case arose under somewhat different facts but turned on the question of the negligence of the truck owner in not providing adequate brakes. Here, as in the case reviewed, the defendant allowed a driver to go upon the streets with a truck that had brakes that were sadly in need of attention. The driver parked the car in a much traveled street upon an incline and left it for a few minutes.

The car started, and running down this incline collided with a child causing the latter's death. An action for damages followed, and it was shown that had the truck been equipped with proper brakes it would not have run wild. Defendant, however, here claimed that his driver was not engaged in the line of his employment when he left the truck as he did, and that for that reason the driver alone should be held liable for the negligence that resulted in the accident. The court, however, turned this proposition down, and in holding defendant liable said:

Owner Alone Liable

"An absolute duty was placed upon the defendant to see that this truck was equipped with proper brakes, and when he negligently omitted to perform this duty, and turned loose upon the streets an instrument of death, he ought to be held liable for the results caused by his failure to obey the law. (201 N.Y.S. 253.)"

To meet modern driving conditions requires talent, skill and equipment all the way along the line from factory designing room to the driver on the road. The driving practices of today are based on brake performance which a few years ago would have been considered remarkable, and modern brakes are capable of such performance if they are kept in proper adjustment and relined when necessary; but if neglected, an emergency may find the driver utterly powerless to avert a serious accident.

Present standards for brakes are found in the "Safety Code for Brakes and Brake Testing" formulated under the sponsorship of the U. S. Bureau of Standards and the American Automobile Association. This code requires that all vehicles shall have service brakes capable of stopping the vehicle from a speed of 20 m.p.h. within 50 ft. on a dry, hard, level road free from loose material; and that the hand brakes shall be capable of stopping the vehicle within a distance of 75 ft. under the same conditions.

Fleet operators, truck dealers and service stations should thoroughly understand both the need for proper maintenance and the method of providing it, and should do everything possible to encourage regular attention by truck drivers and truck customers. To facilitate prompt and reliable inspection and service, fleet service stations, dealer shops and garages should be equipped with brake testing equipment. Besides mechanical testers, shops, in order to expedite repairs, should have hoists to lift vehicles off the wheels; wheel pullers; wheel carriers; floor cranes; shoe-relining machinery; drum truing lathes; pedal depressors; jacks; brake-shoe spring pliers, etc.

The driver is a very important factor in the maintenance of an effective braking system. In the first place the serviceable life of brakes is in his control—he can fly right up to a traffic light and jam on the brakes or he can shut off power sooner and coast a bit applying brakes lightly over a comparative long distance. In the second place, living with his truck, he can quickly detect developing weaknesses. For these reasons operators have found it to their advantage to consider brakes in their bonus or merit systems.

Some fleet operators are giving, and all should give, meticulous attention to the condition of their vehicle through regular inspections by their own mechanics. In some companies, for example, each driver must fill out a driver's card every working day. Any complaint regarding the condition of the vehicle is written on the back of the card and careful inspection is made in the shop, in addition to regular daily inspection of brakes, steering mechanism, shackles, tires and similar items, while a weekly check is made by another inspector to catch any items that may have been overlooked. This plan may be perhaps more rigorous than others that have proved just as effective, but the point to remember is that inspections can never be too frequent—it's the secret of keeping brakes in good condition. Inspections should be given often enough to anticipate and therefore prevent trouble.

Domestic New Truck Registrations by Makes and Months

	Autocar	Brockway-Ind.	Chevrolet	Diamond T	Dodge	Fageol	Fargo	Federal	Ford	G. M. C.	International	LaFrance-Rep.	Mack	Moreland	Paige	Pierce-Arrow	Relay	Reo	Rugby	Schacht	Sterling	Stewart	Studebaker	White	Willys-Overland	Total Sales Including Miscellaneous
January.....1931	223	154	7,569	167	1,186	23	31	111	11,313	447	1,325	28	218	16	27	3	13	280	32	15	62	84	297	221	159	24,415
January.....1930	160	249	8,754	242	1,608	41	186	169	13,233	727	1,835	43	345	51	14	4	28	698	90	21	145	97	104	413	440	30,241
February.....1931	177	107	7,459	135	1,129	31	36	100	10,868	388	1,368	34	184	12	20	4	28	261	30	11	47	85	268	204	184	23,466
February.....1930	135	235	10,332	207	1,269	43	152	162	14,008	552	1,928	44	298	29	43	1	30	365	67	20	74	155	91	320	431	31,882
March.....1931	121	151	9,396	144	1,363	15	28	123	14,731	454	1,881	36	287	17	29	9	18	308	30	10	57	119	362	207	283	30,609
March.....1930	195	384	13,011	264	1,595	48	157	228	19,551	936	2,364	55	452	56	52	3	45	682	62	27	106	265	102	407	559	42,182
April.....1931	155	215	11,195	236	1,575	33	17	150	17,755	590	2,295	58	344	19	20	18	42	354	31	21	104	166	381	228	346	36,848
April.....1930	216	492	14,055	300	1,684	52	153	252	21,757	1,242	2,740	71	566	57	64	4	61	903	47	47	147	314	98	480	564	47,032
May.....1931	155	190	9,932	260	1,492	24	13	170	15,675	543	2,382	40	355	19	18	17	38	306	20	16	101	175	426	254	421	33,496
May.....1930	212	544	12,825	373	1,504	59	152	213	19,758	1,191	2,531	49	717	36	55	2	93	737	59	55	147	305	115	452	456	43,245
June.....1931	179	144	8,970	240	1,285	36	15	144	12,448	513	2,078	45	294	11	24	18	29	466	20	25	59	136	288	267	351	28,496
June.....1930	183	481	9,761	261	1,113	56	118	158	15,669	889	1,917	56	446	29	19	2	43	581	54	38	109	207	102	412	352	33,512
July.....1931	136	143	9,539	304	1,251	32	12	151	12,932	728	2,282	58	288	22	9	12	34	648	18	4	71	129	302	233	355	30,101
July.....1930	194	388	10,947	338	1,080	47	124	209	19,841	882	2,477	50	577	39	35	2	41	583	71	43	100	266	88	460	409	39,888
August.....1931	112	186	8,979	267	989	37	7	125	11,575	735	1,827	25	289	12	17	8	21	609	16	14	59	117	248	207	277	27,070
August.....1930	171	251	9,544	277	707	32	91	142	17,086	604	2,223	51	405	33	29	3	27	436	72	26	102	184	85	399	295	33,758
September.....1931	130	110	8,817	227	922	30	8	100	10,843	640	1,863	37	174	4	26	12	23	623	8	17	68	110	292	237	271	25,967
September.....1930	171	191	9,716	217	1,018	33	60	155	17,531	622	1,827	63	360	41	28	3	25	402	75	21	92	172	102	317	249	33,933
October.....1931	157	148	8,709	233	988	19	5	116	9,601	769	1,695	40	227	6	44	11	15	577	8	11	44	121	308	214	237	24,713
October.....1930	186	265	8,485	144	1,738	28	60	174	18,155	678	1,797	58	391	23	28	3	30	357	56	26	91	177	198	321	252	34,237
November.....1931	95	70	4,838	161	719	15	2	105	6,156	625	1,067	36	146	4	31	9	14	411	6	15	46	83	208	159	124	15,553
November.....1930	119	205	5,453	137	1,243	31	24	145	11,487	378	1,145	33	214	8	25	1	29	256	38	18	52	100	258	225	141	22,012
December.....1931	112	72	4,255	111	639	21	2	132	5,019	503	1,020	24	146	5	22	6	18	329	3	22	22	74	150	133	126	13,177
December.....1930	71	105	5,407	121	1,008	14	19	89	9,046	350	935	25	176	24	21	....	18	226	27	17	58	74	213	192	134	18,665
Total 12 Mos...1931	1,752	1,690	99,658	2,485	13,535	317	175	1,527	138,916	6,935	21,083	461	2,959	147	287	127	293	5,165	222	181	740	1,399	3,529	2,564	3,134	313,911
Total 12 Mos...1930	2,013	3,790	118,290	2,881	15,567	484	1,296	2,096	197,122	9,051	23,719	598	4,947	426	413	28	470	6,426	718	359	1,223	2,316	1,556	4,398	4,282	410,587
January....1932(*)	27	43	3,670	132	450	....	....	59	3,163	302	942	35	60	....	....	10	10	228	7	1	22	29	99	71	99	9,677

(*) 35 States

The President's Page

CONTINUED FROM PAGE 13

tion is the motor truck that will operate profitably on an average of four to five times as far from a given base in the same day. The influence of the carrier is thus extended from 12 miles to 60 miles and perhaps agriculture and industry will break even for a distance of as high as 100 miles from the railroad. It would take only 180,000 miles of railroad, if properly laid, to bring a road within 12 miles of almost every part of America. There are now over 250,000 miles. No doubt many of these railways have outlived their usefulness, and probably about 50,000 to 70,000 miles of track will eventually be abandoned and some rebuilt through sections of the country when they are needed to connect industrial sections.

Time with its everlasting patience weeds out the incompetent, eliminates the unnecessary and impractical. Society and industry must ever be served by the most economical and efficient. Horse-drawn equipment will move a ton on the average of four miles for one dollar. Wheeled and caterpillar tractors belong in this group. Under the most ideal conditions, this type of transportation may move a ton as far as 10 miles for one dollar.

Motor trucks are really the only new type of transportation that has changed the old methods, filling in between the horse and the railroad by moving the ton from 20 to 40 miles for one dollar. The railroads will move the ton on the average of 100 miles for that amount. In 1915 they moved a ton 127½ miles for a dollar. Probably with the new freight rates it will be brought down to 95 or 96 miles for one dollar. It is estimated that water transportation, when opened between Chicago and New Orleans, will save the business men of Chicago an average of $7,000,000 a year, and the farmers of Illinois an additional $5,000,000 per year.

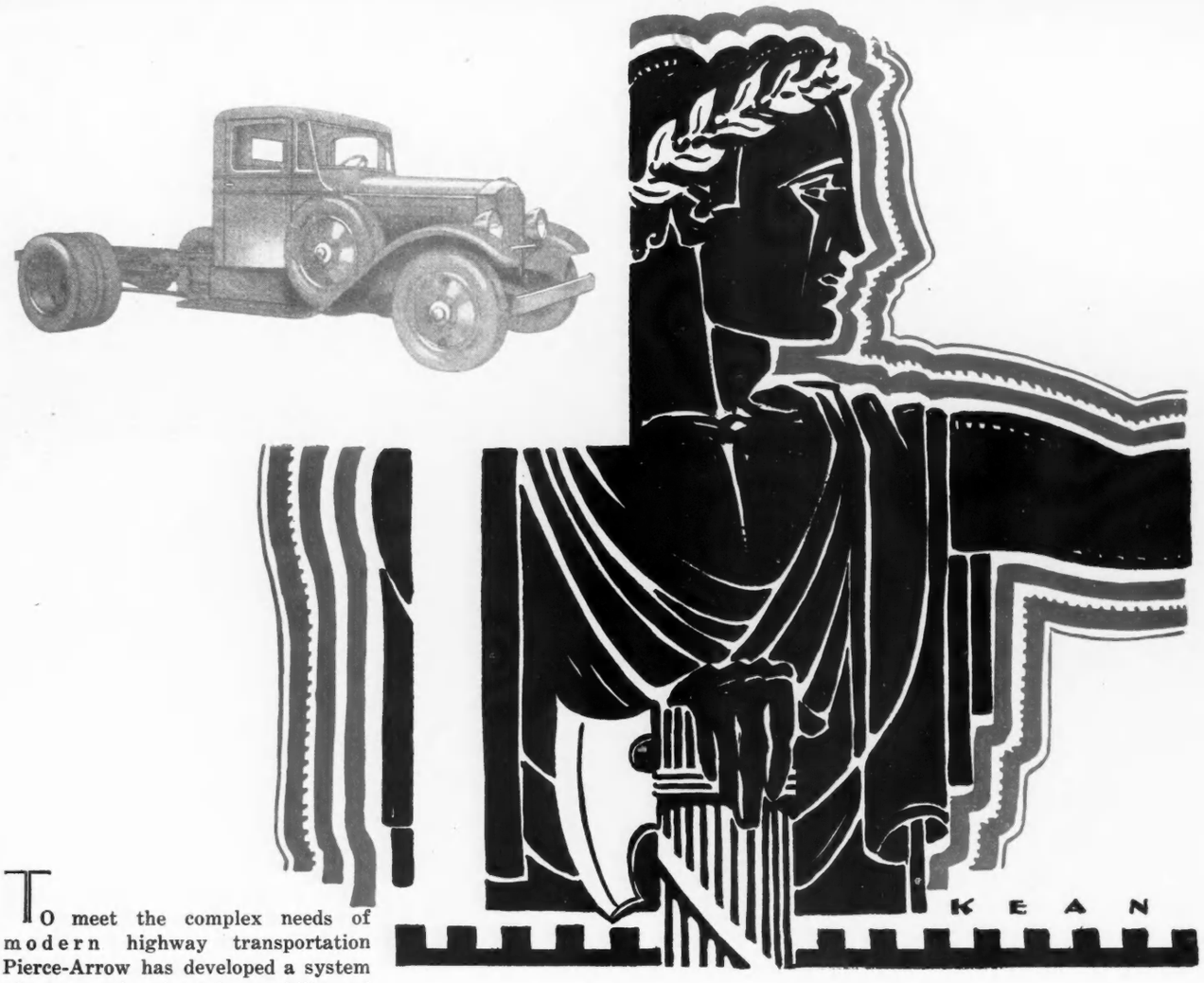
Lake transportation, when passing through locks, will move a ton 1000 miles for one dollar and where it is open water 1250 miles for one dollar. Ocean-going steamers of heavier type move a ton 2000 miles for one dollar. This type of transportation is very limited—there being only about 15,000 miles of river and lake transportation passable and then available only 6 to 8 months a year. Agriculture and industry must rely upon the horse, wheeled and caterpillar for first class, the motor trucks for a second, and the railroad for the third as the universal all-season and dependable means of transportation.

Airplanes are now able to transport goods on an equality with horse-drawn equipment. That is, they can move a ton profitably at the rate of four miles for one dollar on a long-distance haul. No doubt this will be improved and they will be able to handle light freight over long distances. This would leave the railroads to handle the bulk and tonnage commodities on long-distance hauls, that is, over 60 to 100 miles.

The per capita cost of transportation averages about $30 in America. The telephone, telegraph, wireless and radio have all made inroads on transportation. The pipe line, electric current and gas main have also done their part. No one type of transportation can any longer serve all purposes and all industries and people. Each has its place and it is by curtailing the service and making it more useful, economical and dependable that it becomes safer as a business.

For the three primary classes of transportation to quarrel among themselves to increase the burden of regulation and taxation upon each other is neither helpful to them nor beneficial to society. All transportation cost to the public is an overhead charge that should be reduced wherever possible. The horse, the wheeled and caterpillar tractor must continue to bring commodities from forest and

TURN TO PAGE 48, PLEASE



To meet the complex needs of modern highway transportation Pierce-Arrow has developed a system of progressive interchangeability of design which provides a wide range of truck models comprising a comparatively small number of major units. The 17 new models, therefore, are not like strangers, aloof from each other, but, like members of a clan, closely related.

The new line of trucks covers the capacity field from 12,000 to 44,000 lb. gross weight with tonnage ratings starting at 2 tons and extending to more than 5 tons, and, in addition, tractor models are designed for moving gross train weights of 24, 35, 45 and 75 thousand pounds.

Seven six-cylinder Hercules engines and one eight-cylinder Pierce-Arrow furnish the motive power; four single and two tandem rear axles of Timken make, in addition to Pierce-Arrow rear axles in four models, do the driving and most of the load carrying. Four sizes of frame side-rails suffice for foundations for the entire line.

Study of the accompanying box will show how the progressive assembly is carried out, the pertinent figures appearing in a staggered arrangement. For an operator with loads of 2½ tons to haul, a Timken rear axle No. 56200 is chosen, mounted on a 7⅝ in. frame and driven by a 298 cu. in. six-cylinder engine. This is Model 14T298. Note that the model designations are not mere jumbles of letters and figures; the first figure, 14, means that the job is rated 14,000 lb. gross weight and the 298 is displacement.

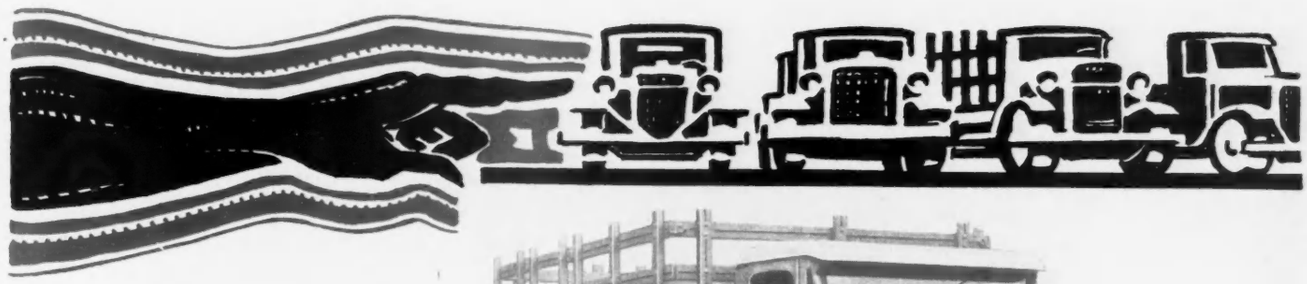
If, perchance, the owner desires a higher order of performance with the same or slightly less carrying capacity, a 361 cu. in. engine is installed in place of the 298, the rear axle gearing is raised, but other major units remain the same. This assembly is Model 12T361. This same engine with

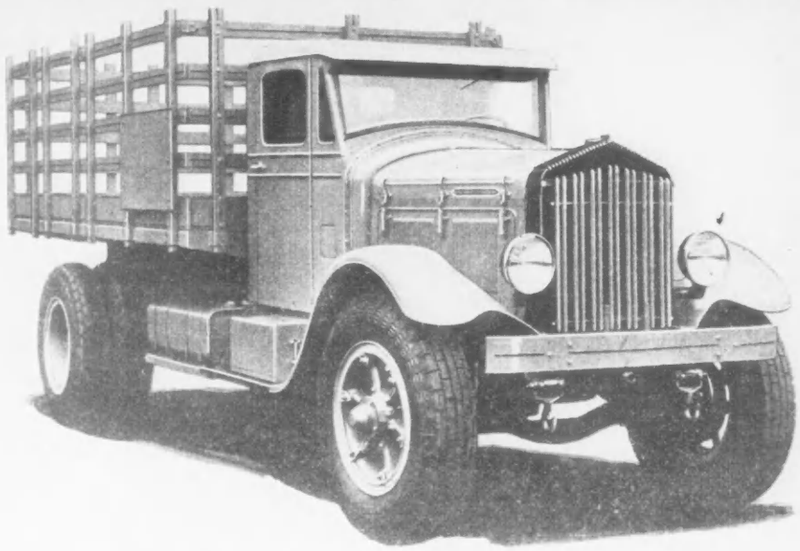
Progressive Interchangeability

Truck Model	Tonnage Rating	Engine Dis.	Transmission Model	Rear Axle Model	Frame Depth
14T 298	2½	298	Clark B 102	T56200	7⅝
12T 361	2–2½	361	Clark B 102	T56200	7⅝
15T 361	2½	361	Cov. RU 4SL	T58200	7⅝
18W 361	3–4	361	Cov. RU 4SL	T65720	8⅛
18R 428	3–4	428	BL 534	T65720	8⅛
21R 501	2½–4	501	BL 534	T65720	8⅛
24X 501	4–5	501	Cov. TNU	T66720	9⅛
28X 501	5–5½	501	Cov. TNU	Own	9⅛
24M 611	4–5	611	P–A amid.	T66720	9⅛
28M 611	5–5½	611	P–A amid.	Own	9⅛
34K 611	5½	611	P–A amid.	Own	10
28Y 479	5–5½	479	Cov. TNU	Own	9⅛
75M 779T	75,000*	779	P–A amid.	Own	9⅛
13S 385	2	385–8	BL 334	T56200	7⅝
Six wheelers					
34L 501 S4	34,000*	501	Cov. TNU	T SW310	10
34K 611 S4	34,000*	611	P–A amid.	T SW310	10
44K 779 S4	44,000*	779	P–A amid.	T SW410	10

* Gross vehicle or train weight.

PIERCE-ARROW LETS JOB DICTATE DESIGN





Left, page 38: The front-end of Pierce-Arrow's new 2-ton eight presents a distinctive and pleasing appearance. Right: One of the sixes in Pierce-Arrow's new line models ranging from 2½ to 5½ tons capacity

a Timken axle No. 58200 goes into Model 15T361, rated 15,000 lb. gross.

Timken axle No. 56200, embodied in the first and second models mentioned, coupled to the new eight-cylinder engine, displacing 385 cu. in., is also a part of Model 13S385.

The 361-cu. in. engine has other jobs. It drives Model 18W361, which carries a Timken 65720 rear axle and has a tonnage rating of 3 to 4 tons. In this model the frame size is increased from 7⅝ in. x 3½ x 3/16 to 8⅛ x 2½ x 5/16.

This axle and frame with a larger engine, 428 cu. in., form Model 18R428, and with a still larger engine, 501 cu. in., appear as Model 21R501. This engine in turn appears in 24X and 28X, the latter with a Pierce-Arrow axle. And so it goes.

Several other chassis parts or units are of the same make, if not the same model for all trucks in the line. Long radiators, Handy governors, Delco-Remy starters and generators, Long clutches, and full-floating rear axles are used throughout. Balloon tires are mounted on all models but one, 34K611, and only on the front axle of it. A maximum wheelbase of 200 in. is offered on all four-wheel truck models, irrespective of length of standard wheelbase. Complete details may be found in the new Specifications Table on pages 68 and 69.

The eight-cylinder truck is a fast-stepping 2-tonner (13,000 lb. gross) designed to take its load to destination with dispatch and comfort. Artists and engineers cooperated in molding chassis arrangement and exterior lines into a unit of distinctive and pleasing appearance.

Cylinders of the eight measure 3½ x 5 in. totaling 385 cu. in. displacement. Maximum torque of 274 lb. is developed at 1000 r.p.m. and power output is 125 hp. at 2800 r.p.m., which is the governed speed. With rear axle ratio of 5.28 and 8.25/20 tires, this engine speed gives road speed of 55 m.p.h.

The crankshaft, balanced two ways, and carrying in addition a Lancaster variable balancer in the rear of No. 1 main bearing, revolves in nine main bearings, 2⅝ in. in diameter. Connecting rod bearings, which are centrifugally cast measure 2¼ in. in diameter and 1¼ in. in length.

A detachable cylinder head covers valves at the side, L-head, the inlets being 1½ in. in diameter and the exhausts 1⅜ in. Lubrication is by pressure to main, connecting and camshaft bearings and timing chain.

Carburetor is a Stromberg duplex with two mixing chambers and spring-type choke, and is fitted with a thermostatically controlled manifold heater and copper mesh air cleaner and intake silencer.

The clutch, a Long 31A, has two dry plates and ball pilot and release bearings. The transmission, which is mounted in unit with the engine, is a Brown-Lipe 334, one of the new series of transmissions described in this issue.

Driving and braking stresses are absorbed by radius rods attached to frame brackets and spring seats of the Timken axle. Brakes are Bendix Duo-servo four-wheel type with vacuum booster for service and a 14 in. disk for parking.

Accounting Rips Blindfold From Blind-Stab Trucking

CONTINUED FROM PAGE 34

(e) Other expenses chargeable to individual jobs or services

2. VEHICLE OPERATING EXPENSES
   (a) Operating materials,
      1. Gasoline or electric energy (fuel)
      2. Lubricants, and
      3. Tires
   (b) Maintenance expenses
      1. Labor
      2. Parts and materials
      3. Outside repairs
      4. Shop rental
      5. Light, heat and power
      6. Depreciation of shop equipment
      7. Tool expense
      8. Salaries of maintenance supervisors, and
      9. Other miscellaneous maintenance expenses

3. OVERHEAD EXPENSES
   (a) Fixed expense
      1. Depreciation of vehicles
      2. Cartage licenses
      3. State license fees, and
      4. Insurance
         (a) Fire, theft and transportation
         (b) Public liability and property damage
         (c) Collision
         (d) Merchandise
         (e) Compensation, and
         (f) Contents of buildings
   (b) Garage expenses
      1. Rental
      2. Light, heat and water
      3. Wages of garage employees, and
      4. Miscellaneous garage expenses
   (c) General supervision expenses
      1. Wages of foremen
      2. Clerical salaries
      3. Foremen's automobile expense
      4. Foremen's miscellaneous expense, and
      5. Other supervision expense
   (d) Selling or solicitation expenses
      1. Advertising
      2. Subscription and dues
      3. Salaries of sales organization, and
      4. Automobile expense of sales organization
   (e) Administrative expenses
      1. Office rental
      2. Salaries of administrative officers
      3. Telephone and postage
      4. Stationary and supplies
      5. Depreciation of furniture and fixtures
      6. Legal expenses
      7. Automobile expense of administrative officers, and
      8. Miscellaneous administrative expenses

New Service Estimation

One of the most important uses of cost data is in estimating the cost of contemplated services so that rates may be fixed which will yield adequate revenue, or if the amount of revenue is known in advance and is not subject to change, the operator can determine whether or not to compete for the business upon the basis of the costs of operation shown in the accounts. The operating costs can be estimated by (1) adding the direct expense items such as wages and other expenses peculiar to the service and the vehicle operating expenses (reduced to a cost per mile basis) and then multiplying this total by the number of vehicles expected to be used in the service. The average mileage of these vehicles are, of course, estimates. The overhead expenses, reduced to unit costs per truck per day, and arrived at by multiplying the number of trucks required each day by the overhead cost per truck per day, are added to the direct and vehicle operating costs referred to above. The sum of these cost factors gives the cost of operating the service per day. Unit costs of operation may be determined by dividing the operating cost per day by the estimated number of units of freight handled per day.

The Motor Haulage Co., Inc., operating one of the largest fleets of freight trucks in the vicinity of New York, uses a system of this sort to estimate the cost of performing estimated services and a comparative record showing the actual and estimated costs. This record or cost sheet contains the following data:

Record Sheet

1. Name of the account or service.
2. Commodity.
3. Point of origin of the movement.
4. Destination of the movement.
5. Dates of movements.
6. Number of packages.
7. Weight of the freight.
8. Number of loads.
9. Number of the trucks used.
10. Capacity of the trucks.

The cost data upon this cost sheet shows:

1. Mileage costs at the mileage cost.
2. Number of truck days at the truck-day rate.
3. Number of truck hours at the truck-hourly rate.
4. Driver's wages at the regular or overtime rates.
5. Helper's wages at the regular or overtime rates.
6. Loading and unloading charges.
7. Ferriage and tunnel charges.
8. Share of direct operating costs.

The total of these cost items gives the total cost of performing the specific service in question.

Space is provided in the record for comments upon: (1) the conditions under which the freight was received; (2) the delivery conditions, explanations of abnormal conditions or delay, and the rates received for the service. Data are also provided showing the rate quoted per unit, the cost of operation per unit, the profit or loss derived from the service, the size and weight of the containers used in the transportation of the freight. Each cost sheet, it will be seen, constitutes a complete case history of each service performed by the carrier.

The services can be controlled by the use of the following formula:

Formula of Control

1. Revenue from operation		____
2. Direct operating costs..	____	
3. Unit cost multiplied by the number of truck miles charged to the service	____	
4. Unit cost multiplied by the number of truck days charged to the service	____	____
5. Profit or loss from the service		____

The Available Fleet

Every motor freight operator knows that he must allow for the trucks out of service because of overhaul, inspection and repairs, and idle because of the nature of the business. Only a percentage of the fleet will be available for duty at any given time. This percentage is arrived at by deducting the average number of trucks unavailable from the total fleet owned or leased. The overhead expenses are reduced to unit costs per truck per day upon the basis of the number of days the trucks are available for duty and not upon the basis of the entire fleet. Idle trucks do not earn revenue, and the distribution of unit costs over the entire fleet, rather than upon the units available for duty, gives an erroneous cost of operation.

It is often desirable to check certain services to determine whether they are individually profitable or otherwise, so that appropriate action can be taken. The revenue from the operation is calculated from the receipts. Against these revenues are set off the direct expenses, including all wages and expenses incident to the individual services and not common to all services, and the overhead expenses on the trucks actually in service. This produces the profit or loss upon the trucks actually used in the services. The overhead expenses upon the idle trucks is then deducted from the profit or loss on the trucks in service to produce the profit or loss from operations.

The net profit or loss for the period under examination may be determined by adding to the profit or loss from operations the following items of income from other sources:

Other Assets and Liabilities

1. Discounts upon purchases.
2. Interest upon bank balances or securities owned.
3. Profit from the sale of equipment.

From this figure the following liability deductions are made:

1. Discount paid upon notes.
2. Interest on notes or other obligations.
3. Federal income taxes.
4. State taxes.
5. Bad accounts.
6. Loss upon the sale of equipment.

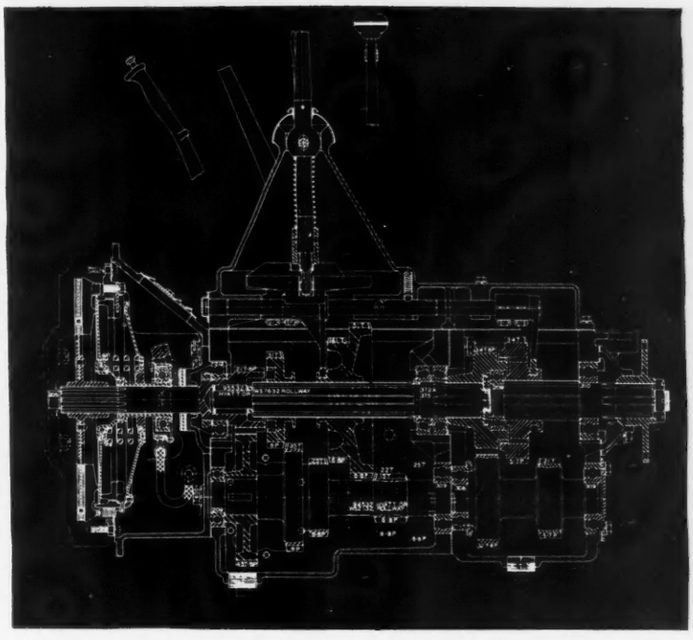
The laws of many states require motor truck freight carriers to file periodical reports and accounts showing the nature of their business and details of their corporate affairs. These reports are compulsory and the accounts must be kept in the form prescribed by the state law. Operators in these states may obtain complete information with respect to the provisions of the state laws and the requirements of the state regulatory bodies by addressing the state public service or public utility commission or other administrative body having jurisdiction.

B-L BOLTS AUXILIARIES TO 4-SPEED GEARBOXES

Three Combinations Give 4, 5, 8 and 12 Speed Options

Speed and Ratio Table

Model	32..	52..	53..	72..	73..
4-speed box:					
reverse	7.70	8.28	7.22	9.13	8.29
first	6.60	7.28	6.35	7.07	6.29
second	3.72	3.51	3.29	3.79	3.38
third	1.82	1.89	1.76	1.91	1.70
fourth	1.00	1.00	1.00	1.00	1.00
5-speed overdrive	.79	.80	.70	.78	.70
2-speed unit:					
direct	1.00	1.00	1.00	1.00	1.00
reduction	1.54	1.52	1.52	1.65	1.65
3-speed unit:	None				
overdrive	...	.73	.73	.77	.77
direct	...	1.00	1.00	1.00	1.00
reduction	...	1.54	1.54	1.47	1.62



Four-speed transmission with two-speed auxiliary attached to rear

CHOICE of four, five, eight or 12 forward speeds, either during factory assembly or afterward by changeover by the owner, is available in a new line of Brown-Lipe transmissions presented by Spicer Mfg. Co.

Speed combinations are built-up by attaching supplementary units with one, two or three speeds to the rear of basic four-speed gearboxes. The one-speed auxiliary provides an overdrive and this gives four forward speeds (with direct drive in fourth) plus an overdrive fifth. By replacing this unit with the two-speed unit, eight forward and two reverse speeds are provided, eight being the direct gear in this case.

Installing the three-speed supplementary unit gives 12 forward and three reverse speeds by compounding the reductions in the main four-speed set. The three-speed set itself contains a reduction, a direct drive and an overdrive.

The line comprises three series, 300, 500 and 700, of which the 300 group is not supplied with the three-speed supplementary box.

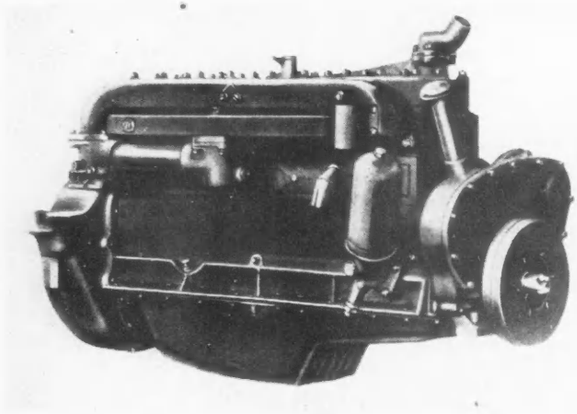
Additional choice of ratios for conditions of service is given manufacturers by making the basic transmissions with high-speed or low-speed ratios. Model numbers with "2" as the second figure denote a transmission with lower ratios, while a second figure, "3," denotes a higher ratio. The same designation is carried through in all models. The last number of the model shows the number of forward speeds, for example, 524 is a four-speed unit, 525 a five and 5212 has 12 forward speeds.

Still another choice may be made, that of reverse ratios. A high reverse ratio, 5 to 1, instead of 7.50 to 1, for example, in the 324, is accomplished by installing an interchangeable transmission case containing the high-speed reverse gears. High ratios in reverse are desirable in road construction.

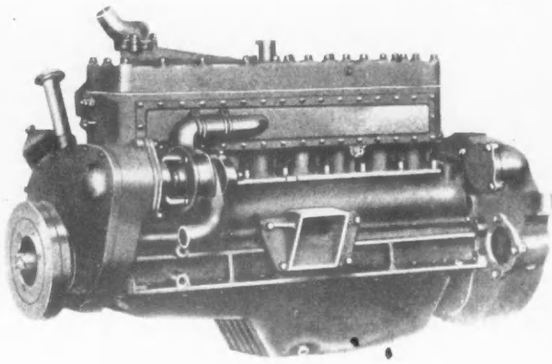
The new series transmissions are designed to operate with standardized controls and no alteration will be required in cab construction, floor board openings or controls now standard for any of the combinations except the 12 speed assemblies which have an additional gearshift lever. The four, five and eight-speed sets operate with only one lever. This interchangeability arises from the fact that the supplementary units are bolted to the rear of the four-speed sets without disturbing clutch housing, gear housing or controls.

Engineering Features

1. Staggered teeth pointed on engaging side for easy engagement.
2. Low tooth pressures.
3. High bearing capacities.
4. Minimum shaft deflection.
5. Shielded ball bearings.
6. Bearing adjustment not affected by heat because shaft is located by rear bearing.
7. Large S.A.E. take-off openings on each side.
8. Three different bell housings for each model. Provision for rear support.
9. Reverse idler gears float when not engaged.
10. Anti-friction bearings carry reverse gears in the 520, 530, 720 and 730 series.
11. Chrome-molybdenum forgings in gears in 320, 520 and 530 series.
12. Five per cent nickel forgings in gears in 700 and 720 units.
13. Case-hardened gears in all models.
14. Chrome-nickel shafts throughout.
15. Main frame construction built into all models.



Below: Left side of new Model HF. The pump bolted to gearcase is driven from accessory shaft by Oldham coupling. Stuffing boxes are large and accessible without special tools. The pump shaft is carried on two bearings, the front is lubricated by the engine system and the rear by a grease cup. The generator is mounted behind pump and driven by a flexible shaft



Above: Right side of new Lycoming 105 hp. straight eight. Both block and head are detachable in this model. The crankcase is rigid and incorporates longitudinal ribs running full length of case a little above oil-pan flange to give the ruggedness necessary to withstand the torsion and twisting encountered in truck service. Three-point mounting is employed. The front support is special and recessed for rubber pad

LYCOMING UNHOOKS BLOCK IN NEW 105 HP. STRAIGHT EIGHT

LYCOMING'S line of straight eights for the commercial field now consists of three models—two 130 hp. models brought out January, 1931, and one 105 hp. model just introduced. The new member to the line, Model HF, is in many respects a smaller edition of the older members, differing mainly in the block, which is detachable, location of the pump and in several other minor details. It has 3⅜-in. bore and 4½-in. stroke, displacing 322 cu. in. and developing 105 hp. at 2800 r.p.m. with max. torque of 225 ft.-lb. at 1200 r.p.m.

The crankshaft, counterbalanced, and fitted with a vibration dampener, is supported in five bearings of white metal alloy on bronze backs, interchangeable without refitting or removal of crankshaft. All the bearings are dowelled in caps. Camshaft bearings are of white metal on steel backs. Tappet noises are reduced by a quieting curve on the cam.

Connecting rods are of 1035 S.A.E. steel with I-beam section. Big-end bearings are of white metal alloy spun in rod, while piston pins, ⅞ in. diameter, clamped in rod ride in bronze bushings. Pistons are cast iron with special ribbing. Four rings are used, two ⅛ in. and one 3/16 in. compression type and 3/16 in. oil regulator type.

Lycoming's Third Eight-in-Line

Size	8-3⅜ x 4½ in.
Displacement	322 cu. in.
Horsepower	105 @ 2800 r.p.m.
Max. torque	225 ft. lb. @ 1200
Compression ratio	5.25:1
Block material	Chromium nickel iron
Main bearings, diameter	2⅜ in.
length, front	2¾ in.
intermediate (3)	1¾ in.
rear	2¾ in.
Intake valve, diameter	1 7/16 in.
material	chrome
seat angle	30 deg.
Exhaust valve, diameter	1 7/16 in.
material	silchrome
seat angle	45 deg.
Valve lift	11/32 in.
Piston material	cast iron
Number of rings	4
Piston pins	in rod
Connecting rod, length	9 in. c. toc.
bearing diameter	2⅛ in.
length	1½ in.
type	spun
Camshaft bearings, No.	6
diameter, front	2.03 in.
diameter, rear	1.94 in.
total length	7.03 in.

Camshaft and accessory drive is through gears. Gears are 1½ in. wide with mating gears cast iron to steel.

Lubrication is by pressure to all main and connecting rod bearings, front camshaft bearing and front-end gears. Cylinder walls, valve mechanism, piston pins and rear five camshaft bearings are lubricated by spray. All oil from the gear pump, located in the crankcase and driven from camshaft by spiral gears, is carried through a full flow-type oil filter to main oil distributing passage cast in crankcase. Drilled passageways in the crankcase webs carry oil under pressure to crankshaft and thence through holes drilled in crankshaft to rod bearings. Holes drilled from header running to the front crankshaft bearing supply front-end gears and front camshaft bearing. The filter is of the metal element type and is bolted to outside of crankcase barrel. An oil relief valve is located in base.

Intake manifold is of Swan type and provided with flange for 1¾-in. single barrel-type carburetor. Intake riser is provided with stove fed from exhaust and controlled by manually-operated heat valve on exhaust manifold.

Flywheel housing is S.A.E. No. 3 with provisions for S.A.E. flange-type outboard starting motor. The generator is of base mount type located behind pump. Distributor located on cylinder head is driven by spiral gears from camshaft. The fan is a four-blade adjustable type driven by V-belt from crankshaft.

FWD HUGS THE ROAD WITH NEW FRONT WHEEL DRIVE

AND now the Four Wheel Drive Auto Co. has joined the-first-in-the-industry club. Its claim to membership is a new low bed front-wheel drive 5-ton truck labeled Model LBU, the first of what will shortly be a full line of front-wheel drive trucks. It marks the first entry of FWD into competition with conventional two-wheel drives. The list price is $4,800 complete with cab and dual tires.

Low frame height, 21-in. from the ground, made possible by elimination of rear driving members, is a distinct advantage of the new-comer, particularly where heavy loads must be hauled or where hand loading and unloading is necessary. In performance, officials state, the truck compares favorably with rear-drives of similar power and capacity. Power in the front wheels also allows drivers to back further over the side of dumps when unloading without danger of loss of traction. The truck, however, is intended for heavy tonnage work.

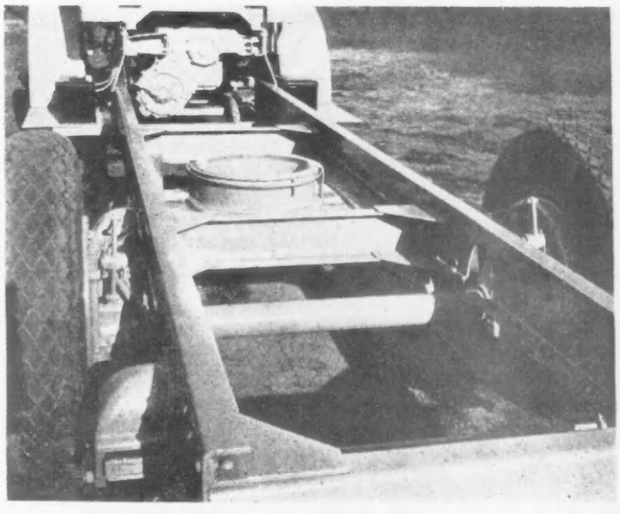
Model LBU is built largely of standard units employed in the four-wheel drives. It differs from the conventional FWD in that power is transmitted only to the front axle, the frame is lower and of new design and the rear axle is designed for load carrying purpose only.

Rear Drives' New Competitor

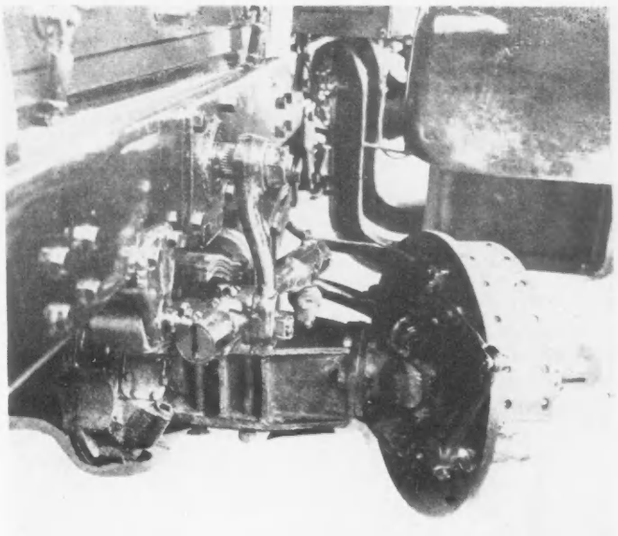
Model	LBU
Capacity	5-ton
Wheelbase	171-in.
Tread, front	69 in.
rear	76½ in.
Frame height	21 in.
Tires	9.00/20
Engine, size	6-4⅛ x 5⅛
hp. @ 2300 r.p.m.	91
displacement	411 cu. in.
Clutch	B-L 55
Transmission	B-L 55
mounting, speeds	U-4
sub-transmission	chain
reduction	1.705:1
Front axle, type	full floating
drive	bevel
reduction	4.31:1
final reduction	7.35:1
Brakes, service	4-wheel mechanical
hand	4-shoe disk on sub-transmission

Power from the six-cylinder 4⅛ x 5⅛-in. engine is carried through a sub-transmission directly back of the regular transmission. Here the power is carried from the level of the regular transmission main shaft to a point below the regular transmission where a propeller shaft carries the power to the front axle. A gear ratio of 7.35:1 in high is obtained through a reduction of 1.705:1 in the sub-transmission and 4.31:1 in the axle. The feature of the load carrying rear axle is the manner in which the 15-leaf 52 x 4-in. springs are arranged to permit low frame height with unobstructed frame loading space and full spring action. The dead axle is attached by U-bolts direct to the springs through axle skeins. The skeins are attached to the axle ends outside of the side rails of the frame. The skeins also provide wheel centers a few inches higher than the axle, thus permitting use of the extraordinarily low frame. Instead of employing a kick-up frame to permit free vertical action of the axle, a deep cut-out in the shape of an inverted U is made in the side rails. The frame is reinforced at these points by heavy underslung members bolted to the channel flange. Front ends of rear springs are shackled and rear ends ride freely on pins carried in brackets bolted to the outside of frame. The four top leaves of the rear springs are carried full length at the rear. The 14-leaf 42¾ x 2½-in. front springs are carried in same manner but under the frame.

The two level frame is of heat treated high carbon pressed steel 7 x 3 x 11/32 channel. It has an overall width of 42 in. on the standard model and extends back of the cab for a body 152 in. long with a standard wheelbase of 171 in. The frame back of the cab is dropped by gussets of ½-in. boiler plate to provide a loaded height of 21 in.



Above: Frame kick-up is avoided by a cut-out in frame and an underslung reinforcing member. Note that the axle is lower than the wheel center. Up front is the sub-transmission, which transfers power forward



Right: The front axle on the new front-wheel drive FWD is the same as that employed in four-wheel drive models. The entire load on the front axle is carried on the axle housing. At the axle end is a ball and socket joint by means of which the truck is steered. Within is a universal to transmit drive to the wheel

New Specifications Table Wins Applause

CONTINUED FROM PAGE 15

tory sales managers, they returned with the remedy.

The remedy, about which there was so much agreement that for a while we suspected we were being "yessed," is a simple one. You can see for yourself by thumbing to the Specifications Table itself. If you study it you will find the changes we listed at the beginning of this explanatory article.

The most important change, of course, is the alphabetical listing. It simplifies considerably the task of, say, a salesman who wishes to get a bead on his competition. His competition on any given deal is usually from one or two makes; in a minority of cases from three or four makes, and never from all makes. Knowing the name of his competitor, it is easy for him to turn right to his listing and there find the truck model or models with which he must become familiar in order to establish the superior advantages of his own.

Because of this major revision it was necessary to provide space for each model's tonnage rating. This has been done with a column in which a manufacturer may either put a single tonnage rating or the tonnages comprising the spread of rating.

While making this major revision the opportunity for effecting certain additions to the table was too favorable to be ignored. Accordingly provision was made for three new column headings: Maximum Torque in Foot-Pounds, Compression Ratio and Brake Drum Material.

Maximum Torque

Maximum torque should be included, it was felt, because the amount of torque the engine develops has a definite bearing on the capacity of the clutch, transmission, rear axle, etc., and furthermore it is impossible to determine accurately the performance ability of a truck without a knowledge of this important factor. As such it is necessary in itself, but in addition it will be a valuable check on ratings based on the S.A.E. standard rating formula if, as and when adopted. Also torque supplements the horsepower figure because it shows the maximum amount of pulling ability of the engine, a factor to be considered in determining gear ratios and governor settings.

Compression ratio was added to the revised table because of the trend toward higher engine speeds and smaller cylinders in engines with more cylinders. The trend, therefore, is to higher compression ratios because automotive engineers have long appreciated the fact that the efficiency of an engine depends in direct ratio to its compression—the higher the compression, the more power will an engine extract from a given amount of fuel. This additional power gives additional performance, making it possible to haul a load farther at less cost. A high compression ratio, as a general rule, is one of 5 to 1 or better.

Brake drum material was selected as an additional specification because an increasing emphasis is being placed upon it in selling.

The regrouping of column headings represents an effort to give quickly and conveniently the major bits of information desired about a truck model. Particularly is this true of major units. A salesman or prospective purchaser of a truck, after checking tonnage, price, wheelbase, etc., wishes next to know the make, model, number of cylinder, bore and stroke of the engine; next details of the transmission and next particulars of the rear axle. Therefore these data have been collected and placed under the inclusive heading, "Major Units." You may be sure the editors will be sorely disappointed if this arrangement does not meet with general approval.

Truck Rating Formula

Providing additional space in the Gross Vehicle Weight column contributes nothing to the table at the moment, but it was done to anticipate adoption of a standard truck rating formula by the S.A.E., and to promote its use by truck manufacturers. The space now provided will enable a manufacturer to publish the three-factor rating which has made such remarkable progress with the S.A.E. rating committee. Once the formula is adopted manufacturers will be accorded the privilege of either ignoring it and using the column for gross vehicle weight or fostering it by publishing the three-factor figure, the first of which, as you must know if you have followed the rating articles in this publication, will designate the gross vehicle weight.

Hereafter, if list prices do not accompany specifications published, readers may expect to find a note explaining the reason. The ambition of the editors will be to have the list price column filled solidly from end to end. In establishing its policy, "no list prices—no specifications," COMMERCIAL CAR JOURNAL had this to say to factories:

"The industry has made a marked advance in the direction of publishing list prices. The secrecy practiced a few years back has given way to wholesome frankness. In order definitely to discourage any return to the old practice COMMERCIAL CAR JOURNAL reserves the right to deny the listing privilege to any company which arbitrarily omits to quote chassis prices. Omissions must be accompanied by an acceptable explanation." How well the manufacturers responded to this policy is evident in the fact that while some balked at first, they came through in the end. No manufacturer was refused a listing because of refusal to reveal chassis prices.

Switching from "Area of Service Brake" to "Service Brake Lining Area" was the result of a field survey which revealed preference for the lining area as being less confusing and generally more acceptable because it represented "frictional" area, and that, after all, it is the contact of lining with brake drum which stops a vehicle.

Complete Listings

All these changes make up the revision of the Specifications Table, a revision which is a wholehearted attempt to keep step with the industry's progress and to anticipate the needs of readers. Now the throbbing ambition of the editors is to have every column filled with explicit information. In this regard their chief interest will have to do with the procuring of model numbers wherever the Specifications Table calls for them. Some assembled truck companies have been omitting model numbers of rear axles, front axles, transmission and, in some cases, even of engines. The utter uselessness of a listing which does not contain this important information has been mentioned frequently by truck fleet operators. When the fleet buyer or individual buyer gets down to comparing the specifications of two or more trucks he wants all the facts. For a manufacturer to indicate merely the make of a unit is akin to a butcher's telling a housewife that a package contains meat when the housewife primarily wants to know whether she's getting steak for her 80-cent investment or pork chops. This is a homely analogy, but the hunger of users for specific information makes it apropos.

On the other hand, certain makers of manufactured trucks have fallen into the habit of listing engine, rear axle and transmission as "Own," meaning thereby that the unit is of their own manufacture. This is just a slight improvement over informing the truck buyer that "Yes, our truck has an engine, rear axle and transmission." How in the world does it

TURN TO PAGE 48, PLEASE

PROTECTION

You insure your trucks and trailers, as well as the loads they carry—a fundamental of sound business management.

Lockheed Hydraulic Brakes are a great deal more than good brakes. They are insurance—of a thoroughly practical, sensible, and economic kind.

For sure, uniform dependability in stopping; for freedom from brake troubles; for facilitating speed and punctuality of schedules—in every phase of efficient braking, Hydraulics have an enviable reputation, and an impressive list of satisfied users.

HYDRAULIC BRAKE COMPANY
DETROIT, MICHIGAN, U. S. A.

LOCKHEED HYDRAULIC *Four* BRAKES *Wheel*

AUTOMOTIVE FLASHES

When Big Fellows Get Together

At the seventh annual meeting of the Truck Association Executives of America held in Detroit it was decided that a national association of truck users and allied industries be formed to effectively meet the many problems of the trucking industry. The meeting was attended by a large list of representative association executives. The rapidly developing industrial need of truck terminal facilities, the need for standardized practices in motor transportation, development of closer relationship with the cartage, draying and transfer industry and the finding of a common interest between the builders and users of highways were high spots in the discussions.

Thou Shalt Carry!

The effort to require all motor vehicle transportation companies to transport any and all mail matter which might be offered for transportation by the United States Post Office Department, under contract with the Postmaster General at rates to be fixed by the I.C.C., has been renewed with the introduction in the House of H.R. 8025, a bill to provide for the transportation and distribution of mail on motor vehicle routes. Congress will ask for a hearing at an early date.

Rail Shuttles Shudder

To reduce operating costs, increase revenues, provide greater public convenience and speedier service a joint rail-motor plan was effected by the Burlington Rapid Transit Co. and the Central Vermont Railway to and from Burlington and Essex Junction on the main line of the railroad. A bus, truck and limousine will be used on the eight-mile run. If the plan proves successful it will be extended to other points where rail shuttle service is being maintained.

Ford Gets Juicy Order

The U. S. Post Office Department has placed an order for 2000 Ford truck chassis, 500 with 1800 lb. gross load capacity and 1500 with 4200 lb. Contracts for bodies are reported to have been let to General Motors and the Mifflinburg Body Co. This is perhaps the largest single order placed by the government since the war.

After 27 Years

Reo Motor Car Co., which operated since 1904 under a similar name in Canada, has concluded arrangements with Dominion Motors, Ltd., of Toronto, for the exclusive manufacture, sale and service in Canada of Reo passenger and commercial vehicles.

Another Low

A new 1½-ton Diamond T listed at the record low of $595 is being offered by the Diamond T Motor Car Co. Model 210 is a forerunner of an entirely new series, which will run up to four tons capacity at prices below anything ever before offered by the company.

Mack Reports a Loss

Mack Trucks, Inc., for 1931, showed a net loss of $3,032,410, compared with a net profit of $2,007,607 for 1930. Sales in 1931 were $27,621,047, as compared with $43,644,097 for 1930.

PERSONNEL CHANGES

✪E. K. Bard, who during the last three years has contributed materially to the improved appearance of the FWD line, has been appointed art engineer of the FWD company.

✪F. F. Beall, one of the organizers of the Gray Motor Car Co. and formerly a vice-president of the Packard Motor Car Co., has been elected vice-president and a member of the board of Continental Motors.

✪George E. Roller, formerly with Diamond-T, has been appointed national account representative at Chicago for Studebaker trucks, and H. L. Whitesell, Jr., previously Reo wholesale manager, has been named district manager at Kansas City for the same organization.

✪Frank Jay, formerly a field representative, was elected vice-president of American Car & Foundry Motors Co., succeeding W. L. Standcliffe, resigned. Mr. Jay will direct the automotive sales organization.

✪George Bowles, well known in Philadelphia trucking circles, active in truck association work and formerly sales representative of the local branch of the Wood Hydraulic Hoist & Body Co., died suddenly in January of a heart attack. He was 42 years old.

✪William H. Brearley, secretary of the Autocar Co., was elected to the board, succeeding J. B. Warren, resigned. All other directors and officers of the company were reelected.

✪R. W. Mackie and B. A. Mosling were reelected president and vice-president, respectively, of Oshkosh Motor Truck, Inc.

✪Messrs. Bishop and Higgins have been elected to the Subsidiary Board of Autocar and Mr. Warner has been appointed manager of St. Louis branch.

PROSPERITY NOTES

$ Alvan Macauley as president of the N.A.C.C. in a review of conditions expressed the opinion recently that the decks are cleared for aggressive sales activity in 1932, saying: "In many respects conditions with the automobile industry are much better than they were even in the boom period of 1929."

$ Continuation of the upward swing in truck sales by General Motors Truck Co. is revealed in an official statement that deliveries in January were 54 per cent over the same month last year at branch and distributor points.

$ Truck Equipment Co., Inc., maker of the Hickman Gravity Spring Suspension and Fager Third Axle units, reports net profit for 1931 of $10,088 after all charges.

$ Goodyear Tire & Rubber Co. reports consolidated net earnings for 1931, after all charges, of $1,328,623.

$ Among other things W. A. Olen, president of the Four Wheel Drive Auto Co., says: "We are carrying the largest volume of commercial orders on our books in the history of the company; all machine departments are working 24 hours, five and a half days a week; survey of our markets indicates that we will busier in 1932 than in 1931."

$ A net profit of $231,190 is reported by the Bower Roller Bearing Co. for year ended Dec. 31, 1931, after all charges and taxes.

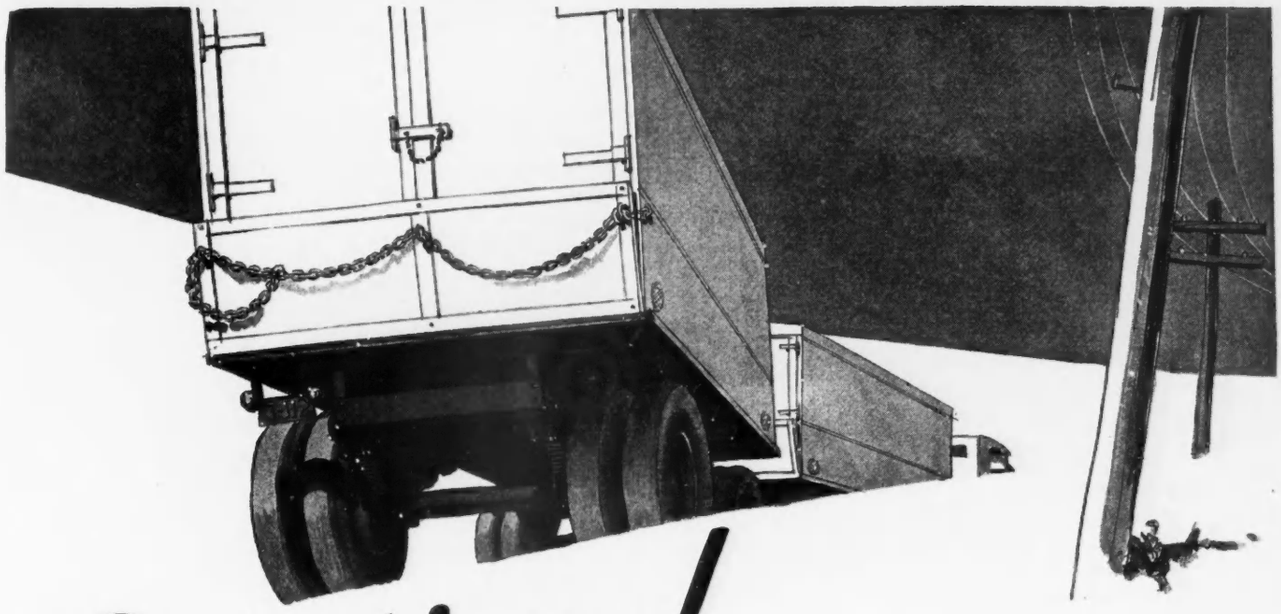
$ Employment in the state of Michigan during January was upped about 12,000 to 163,511 over the 149,563 total of December.

$ International Harvester Co. reports a net profit of $1,346,000 for 1931.

$ Budd Wheel Co. reports net profit for the year 1931 of $182,674.

$ Ross Gear & Tool Co. reports net profit for 1931 of $246,422.

$ Trico Products Corp. reports net profit for 1931 of $1,620,550.



Caution!

...HIGH EXPLOSIVE

If you operate trailers which have no brakes, it's most natural for you to consider putting brakes on them, just as they are.

Caution—don't try it; *loaded with dynamite!*

There's just one safe, practicable way to modernize brakeless trailers—and that is to put under them new axles equipped with proper brakes.

Timken Trailer Axles are designed and built for the expressed purpose of making it easy and economical for you to change your trailers to up-to-date transport units, meeting all requirements of state laws and insurance underwriters. They are *good* axles—Timken quality in every respect; with *correct* brake mountings, for any type of brake.

For modernizing trailers Timken Trailer Axles are sold, installed, and serviced by the authorized distributors of Bendix-Westinghouse Automotive Air Brake Company, Pittsburgh, and Bragg-Kliesrath Corporation, South Bend, Indiana. Get in touch with your local distributor, or either of the above companies.

THE TIMKEN-DETROIT AXLE COMPANY, *Detroit, Michigan*

TIMKEN AXLES

Truck Forces Wheel Into Action Against Couzens

CONTINUED FROM PAGE 17

"Theoretically we believe that these common carrier interstate trucks should be regulated. Practically, any such attempt to regulate this movement would be ineffective, first because of the very small percentage of trucks involved. It would seem unreasonable to build up an intricate regulatory machinery for enforcing a law to apply to such a small percentage of vehicles. We believe that the cost of enforcing it would be tremendous. We have not been able to obtain any estimates of the amount of appropriations that would be required to enforce it. We simply call to your attention the number of miles of state boundaries in the country and leave to your judgment what it would cost to enforce such a law.

"It is impractical because of the fact that these interstate operators are continually subjected to the competition of contract carriers, both as to rates and service. If the business of the interstate common carrier should be penalized with regulation which increased its costs of operation, we could only expect a repetition of the experience in the various states where common carrier trucks have either lost their business to the contract carrier, or have gone into the contract carrier business where they have been burdened with regulations.

"The effect of this regulation in its relation to railroad regulation is particularly interesting because one of the prime reasons for enacting railroad regulation was the protection of the small shipper against rebates in preference to the large shipper. The result of motor truck regulation, on the other hand, would be exactly the opposite. The shipper with large volume could very properly invest in his own motor trucks. The smaller shipper and the small business, not having the volume to justify a similar investment, and is dependent on the contract or common carrier to handle all the business, would be deprived of a flexible and economic means of distribution."

Mr. Dahl made one reference to the dissimilarity between rail and motor vehicular common carrier service which deserved more emphasis than it received. He said "There is a dissimilarity between rail and motor operation in that no motor common carrier can hold itself out to carry all types of business which may be offered. For example, the furniture van cannot haul steel girders, nor the egg truck cement. The physical characteristics of the truck itself prevent such 'holding out.'"

Everett J. Arbour, general manager of the Consolidated Motor Lines, Inc., Hartford, Conn., objected to federal control which might either permit the railroads to strangle his business or which might give contract or private carriers an unfair advantage. He asserted this his company is not a competitor of the railroad. "If the railroads want to be competitors of ours," he said, "they must give the same kind of service that we give from store-door to store-door, with equal rates and in as quick time." He saw no reason for burdening with expensive red tape a transportation service against which there has been no public complaint. (Editor's note—Mr. Arbour made several telling observations. These deserve extended presentation and will be published in May.)

Both Mr. Arbour and J. W. Blood, of Wichita, Kan., told of high taxes paid by truck lines. Mr. Arbour said his line paid $42,000 in taxes in 1931 on approximately 100 trucks. Mr. Blood declared that after payment of operation and maintenance costs, 66 2/3 of his income went for taxes.

Clearance Lights Give Trucks Xmas-Tree Aspect

CONTINUED FROM PAGE 16

Speaking of reflectors, a number of the states now permit reflectors as optional for certain required lights, particularly for the clearance lights. Illinois, which has rather an elaborate system of marker lights, calls for a yellow or amber reflector at the front lower left corner, and a red reflector at the rear lower left corner to be placed not over 12 in. from the corner.

The states requiring towing devices capable of controlling the deviation from the track for the first time are Florida, Indiana and North Carolina. States enacting new laws requiring brakes for trailers, controllable from the driver's seat, are Connecticut, Florida, Georgia, Illinois, Kansas, North Carolina, Oregon, Texas and Wisconsin.

The President's Page

CONTINUED FROM PAGE 37

farm, and no unnecessary restrictions or taxation making it burdensome for them can help the motor truck or the railroad, and, in like manner, the improvement of roads and motor trucks should reduce the cost of hauling from farm and forest and factory to the railroad, and no restriction and taxation to increase the cost of their work can, in the final analysis, be helpful to the railroads. The solution is rather for the railroads to eliminate their waste and unnecessary tracks and equipment and concentrate on through lines, better roads and equipment.

I hope the time will come when motor trucks and good roads will cut the cost in two and that railroads will be able to haul a ton 200 miles for a dollar.

New Specifications Table Wins Applause

CONTINUED FROM PAGE 44

enable him to distinguish between, say, a company's A, B, C, D, E and F chassis models when there is nothing present to differentiate between unit parts? Naturally, the possessive pronoun "Own" is not sufficient.

In such cases as the above, particular pains will be taken to procure distingushing data.

Finally, the editors urge readers to study the table and to study carefully the "Key to Abbreviations and Reference Marks." And if suggestions for further improvement occur to them, they will be accorded a hearty welcome

Hose Hoist

CONTINUED FROM PAGE 33

because a shop-made device pulls the hose back into position as soon as a workman releases his grasp upon it.

Simple indeed are the construction and the motive power which is the ever-reliable force of gravity. A piece of pipe extends from the floor almost to the ceiling level at every post in the building on which a hose outlet is placed. Inside the pipe is a weight, similar to a sash weight, attached to a long piece of sash chain which runs through a relatively large pulley and is attached to a clamp on the hose. The hose can be pulled out to its full length and moved about at will and when released it is pulled up into a long inverted U-shaped loop, as shown in the drawing.

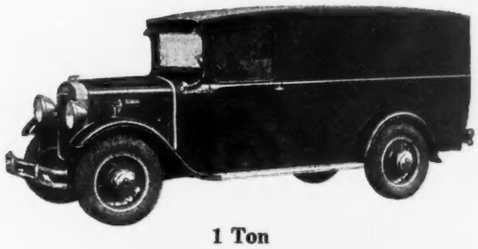
Lubricating System

CONTINUED FROM PAGE 33

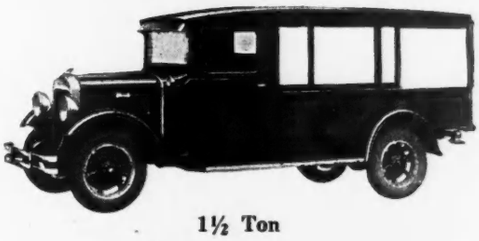
intervals and the transmission and rear axle at the longest intervals. The written chart has all of the standing and power of a company rule.

Equipment carried about the garage and to outside garages of the company by the workmen who do the lubricating was chosen carefully and standardized. It comprises two boxes with trays and partitions to fit the various tools and devices and a portable high pressure lubricator. On the lid of each box is a typewritten list of the equipment to be carried therein.

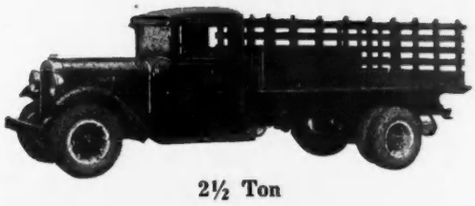
The 1932 Stewarts will Astound Truckdom



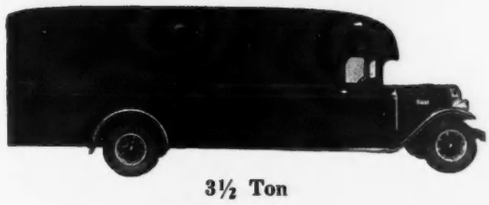
1 Ton



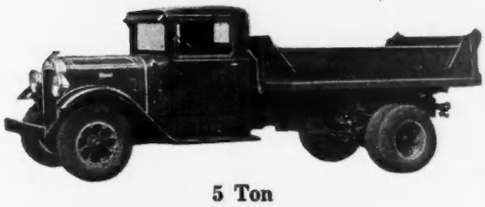
1½ Ton



2½ Ton



3½ Ton



5 Ton

Tractor and Trailer

A Big Money Making Opportunity for Truck and Passenger Car Dealers

For 19 years Stewart has built quality trucks to sell at moderate prices—the new Stewarts surpass all previous achievements.

Handsomer than ever in appearance—more rugged, more powerful—the 1932 Stewarts are marked by improvements in engineering principles and design that place them at the top of all truckdom.

See them and you'll realize why they will prove big profit producers for truck or passenger car dealers.

The amount of money necessary to handle the Stewart line is astoundingly small. Dealer discounts are extremely liberal.

Thousands of Stewarts are in use in 600 American cities and 86 foreign countries.

Thousands more will be sold in 1932. See the Stewart Exhibit. Examine Stewart improvements.

Write or wire for complete information, catalogs, prices and discounts.

15 Models—57 Wheelbases 1 to 7 Ton—
$695 to $6190—6 and 8 Cylinder Motors

Stewart
MOTOR TRUCKS

STEWART MOTOR CORPORATION
BUFFALO, N. Y.

Stewart Truck Corporation of Canada, Limited
Fort Erie, Ont., Canada

Cables: Stewartruk Buffalo

Codes: Acme, Bentley's (Complete Phrase) Bentley's (Second Phrase), Universal Trade Code, A.B.C. 5th Imp. (5 and 10 Letter)

Stewart Trucks have won—By costing less to run

Nailing Down the Arguments Against Repair Standards

CONTINUED FROM PAGE 35

gineers and service men feel that you can't specify when a part is junk? If you ask them they give you an earful. They say for one thing that operating conditions are different; that requirements are different; that a lot of other things are different; that it just can't be done.

But when you come right down to it, what's it all about? All we say is that there comes a time in the life of every part when it is junk—only that and nothing else. Why is it impossible to say that a certain bearing is no good when the total clearance exceeds a given amount? You wouldn't run a wrist pin with 0.010 in. clearance no matter where the truck was used. If the truck was used only on short hauls, the Class 2 clearances would give you the most economy within safe limits.

Right at this point let us say for the benefit of many shop men and engineers that we are not proposing standards in the sense that everybody will knuckle down to some arbitrary dimensions. That's exactly what we're trying to get away from. Trucks differ, engines differ, everything differs with the make, and the price you pay. Is it clear that universal standards, some of which are simply the result of one mechanic's experience, do not pay? If you're still unconvinced, look at the list of exceptions to universal standards which was given in the S.A.E. paper.

Another thing, let no one say that it is possible to discount the skill and judgment of our mechanics. No standards will ever do that. But think how their efficiency can be improved if their work is guided by sensible instructions. Not the least of the advantages of this will be their ability to rebuild units on the same basis. That's true economy and we need it these days.

Perhaps this will answer the questions of several men who decried the complication of service manuals for this purpose. Make the manual simple, and to the point but give the essential information. Suppose you are burdened with a large fleet of trucks of different makes. That's the very place for service standards. Why make it still harder for the overworked foremen? COMMERCIAL CAR JOURNAL for September, 1931, shows on page 19 how one shop handles a variety of service information in a simple fashion.

H. V. Middleworth, of the Consolidated Gas Co., is one of a large group of practical operators who voiced approval of this set-up. He is running one of the biggest truck fleets in the East and in his opinion the service standards would be an important factor in cutting down operating costs.

When you rebore cylinders how can you tell when the limit of wall thickness is reached? How much can you take off in truing up brake drums? The information in the junking limit Class 3 will tell you quickly and accurately.

Again let us recall that the Class 1, Class 2 and Class 3 figures will be established, in many cases, for clearances as well as wear of parts. Take for example a wrist pin and bushing. Standards will be set for the clearance between pin and bushing in original assembly, that is Class 1. Then a standard will be set for increase of clearance (from wear of pin and bushing) at the point at which we may look for trouble, perhaps a light tapping when the engine idles cold. The third figure, Class 3 will be the point when the pin is hammering around in the bushing bore.

Of Course, You Can, But—

But we need other figures beside the clearances. We can take up the clearance of the Class 3 order by putting in new piston pin bushing and using the same pin. But the next time clearance reaches the Class 3 limit it is a question whether we must use a new pin as well as new bushings. Class 1, 2 and 3 limits for wear of the pin will decide this question.

Of course, service standards will need better and perhaps additional inspection equipment and tools. But as J. F. Winchester pointed out, service stations already are loaded down with a lot of equipment. True enough. What's needed is not a lot of useless gadgets but plenty of good stuff that will help to run the shop at a profit.

Now it happens that the dope we are looking for is not lying around handy. That is where the truck engineers come in. The point is that the engineers and service men must get together and work out something that's based on years of sound experience which is the heritage of the operating field. The way to do it is to have engineers travel around to the shops and see what they are doing. Swapping experiences will do the trick.

And when it's all said and done, the work is going to help everyone concerned, which you will admit is a rare combination. Service will benefit by cutting operating costs; the truck builders will benefit by supplying something that will be a service to the user as well as a good talking point for any truck salesman. Perhaps, too, it will be a means of taking off the road a lot of wornout rolling stock which will not show up so well when we know how much it costs to keep it going.

The transportation industry is growing by leaps and bounds. To keep it going at the right cost is more of a job today. Repair service standards are offered as the right way to keep up the fine work that our service men have carried on so far.

Oil Change Fuss Just a Nightmare

CONTINUED FROM PAGE 23

everything with a grain of salt, and have proceeded on our own way, making a good many of our own experiments, and where we have found that results are at all reasonably economic and efficacious, we have set them up as our own standards.

Having carefully studied our own problems and compared them with the problems of other operators, I find that I have certain deep-seated convictions that each operator can solve his own lubrication problems once and for all by himself if he goes at it right.

(1) Ignore the battles being waged regarding the best oil brand, the best scientific analysis, and select one or two of the best grades of oil from a reputable producer, and stick to the selection.

(2) Make a thorough survey of your vehicles, after selecting your oil, and consider the mechanical structure of your vehicles as being potentially as much at fault as the oil, if trouble should be encountered.

(3) Conduct your own operating tests, surveying the type of work your units perform and the conditions under which they must operate.

(4) Consider your vehicle replacement program. In certain lines of work you will find it advantageous to shorten the expected life of your units and trade them in at less mileage than has been your habit. This will simplify your lubrication problem in proportion to your revision of replacements.

(5) Don't listen to what the XYZ Transportation Company did with its fleet lubrication if it's hauling sand and gravel in Maine and you are hauling fruit in California, and remember that your climatic and road conditions are different, your average mileage per vehicle haul will vary, your fleet is made up differently, etc. Each of these factors is vital in your results.

(6) Put your tongue in your cheek

TURN TO PAGE 72, PLEASE

Kombination Twin City Farm Tractor manufactured by Minneapolis-Moline Power Implement Company, Minneapolis, Minn.

65 REASONS WHY Twin City Tractors *"perform better longer"*

Transmission showing Nickel Alloy Steel gears and shafts used in Twin City, KT and Universal tractors.

● Glance over the list of Nickel Alloy Steel parts in the adjoining column and you'll find sixty-five good reasons why Twin City tractors "perform better longer". Twenty-seven of these tough dependable Nickel Alloy Steel parts are used in the sturdy engine—the remaining thirty-eight assure economical performance in other parts of this widely known tractor. • Agricultural machinery manufacturers realize that in modern power farming the best material available is none too good. That's why the manufacturers of Twin City tractors insist on Nickel Alloy Steel for highly stressed parts. • Our technical files contain a wealth of data that may help you in specifying alloy steels. Write us concerning your particular problems.

THE INTERNATIONAL NICKEL COMPANY, INC.

Miners, refiners and rollers of Nickel... Sole producers of Monel Metal

67 Wall Street, New York, N. Y.

Nickel Alloy Steel parts in Minneapolis-Moline Tractors:

Name of part	Number used	Material S. A. E.
Intake valve	4	3140
Piston pin lock screw	4	3140
Connecting rod bolt	8	3135
Flywheel bolt	6	3130
Clutch driving pin	3	3140
Governor spindle	1	3120
Governor thrust plug	1	3135
Belt pulley pinion	1	3120
Reverse idler gear	1	3120
Reverse idler stud shaft	1	3120
Plow and high speed gear	1	3120
Low speed gear	1	3120
Main drive bevel pinion	1	3120
Belt pulley gear	1	3120
Counter shaft gear	1	3120
Low and plow speed pinions	1	3120
Reverse pinion	1	3120
Cap screw for bearing cage	1	3140
Differential ring gear	1	3140
Differential gear	2	3120
Differential pinion	4	3120
Bolt for differential cage	8	3140
Rear axle	2	3140
Housing cap screw	6	3140
Bull pinion	2	3120
Differential shaft	2	3140

Send for Bulletin No. 13 "Torsion, Impact and Other Mechanical Properties of S. A. E. 3130 Nickel-Chrome Steel".

Nickel
ALLOY STEEL
PERFORMS BETTER LONGER

Dependable materials are the best assurance of dependable performance

INCO NICKEL

COMMERCIAL CAR JOURNAL'S

CORRECTIONS ARE MADE EACH MONTH FROM DATA SUPPLIED DIRECT BY TRUCK MAKERS +

Line Number	MAKE AND MODEL	GENERAL (See Keynote)						TIRE SIZE		MAJOR UNITS									FRAME	
										ENGINE		TRANSMISSION			REAR AXLE			GEAR RATIOS		
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Gear and Type	Drive and Torque	In High	In Low	Side Rail Dimensions	Type
1	A.C.F.....T-160	6	6950	186	222	23600	10170	B9.75/22	B9.75/22	HaS 160	6-4¼x5½	BL 1714	U 4	Op	Tim 76730	2F	R	7.46	52.7	8x3	C
2	.....T-175B	6½	8300	186	222	24300	10750	B10.50/22	B10.50/22	HaS 175	6-5x6	BL 714	U 4	Op	Tim 76730	2F	R	7.46	38.6	8x3	C
3	.....T-175A	7½	8800	186	240	28300	11610	B10.50/24	B10.50/24	HaS 175	6-5x6	BL 714	U 4	Op	Tim 79730	2F	R	7.48	38.7	8x3	C
4	Am. LaF. Big Ch.	16 5	6725	226	242	24000	10000	P40x8	DP40x8	Own	6-4½x6	Own	A 4	No	Own 16R	2F	R	6.13	33.0	9¾x2½x¼	T
5	Armleder.....11Ha	2-3	1570	156	195	.....	4070	B7.00/20	DB7.00/20	Con 16C	6-3⅜x4½	Fu WOBB	U 4	No	Tim 53200H	BF	H	5.83	31.2	6x3x¼	P
6	.....21Ha	2½-4	2185	160	207	.....	4783	B8.25/20	DB8.25/20	Her WXB	6-3¾x4½	Fu MLU	U 4	No	Tim 54200H	BF	H	6.06	38.5	6x3x¼	P
7	.....31Ha	3½-5	2745	146	213	.....	5838	B9.00/20	DB9.00/20	Her WXC	6-4x4½	Fu MGU	U 4	No	Tim 56200H	BF	R	6.02	39.2	7x3x¼	P
8	.....41Ha	4-5½	3050	134	227	.....	6600	B9.75/20	DB9.75/20	Her WXC	6-4x4½	Fu MGU	U 4	No	Tim 58200H	BF	R	6.83	43.8	7x3x¼	P
9	.....61Ha	5-7	3625	134	227	.....	7400	B9.75/20	DB9.75/20	Her WXC2	6-4¼x4½	Fu MGU	U 4	No	Tim 65706H	WF	R	8.5	55.2	8¼x3x⅛	P
10	.....71Ha	7-9	4595	138	235	.....	7800	B10.50/20	DB10.50/20	Her YXC	6-4⅜x4¾	Fu VUOG	U 5	No	Tim 65704H	WF	R	8.5	55.2	8¼x3x⅛	P
11	.....TRHA	10	3645	148	174	.....	6250	B9.75/20	DB9.75/20	Her YXC3	6-4⅝x4¾	Fu VUOG	U 5	No	Tim 58200H	BF	R	7.8	55.1	7x3x¼	P
12	.....TRDA	10	3895	148	174	.....	6450	B9.75/20	DB9.75/20	Her YXC3	6-4⅝x4¾	Fu VUOG	U 5	No	Wis 88374L	2F	R	7.8	56.8	7x3x¼	P
13	Atterbury.....A	1	1095	132	145	7000	3400	P30x5	P30x5	Lyc WTG	6-3x4¾	Wa T9	U 4	...	Tim 51000H	B	H	6.20	39.7	5¾x3¼x¼	N
14	.....K	1½	1595	145	160	8000	3640	P32x6	P32x6	Lyc WTG	6-3x4¾	Wa T9	U 4	...	Tim 52200H	B	..	6.50	39.7	5¾x3¾x¼	N
15	.....G	2	1985	160	160	10000	3955	P32x6	DP32x6	Lyc 4SL	6-3¼x4½	Co F4B	U 4	...	Tim 54200H	B	H	6.80	45.1	5¾x3¾x¼	N
16	45	2-2½	2375	175	188	12000	5300	B7.50/20	DB7.50/20	Lyc ASD	6-3⅝x4½	Co W4C	U 4	...	Tim 54200H	B	H	6.80	39.8	7x3¼x¼	N
17	50	2½-3	2950	189	202	14000	5800	B8.25/20	DB8.25/20	Lyc ASD	6-3¾x4½	Co W4C	U 4	...	Tim 56200H	B	H	7.40	43.3	7x3¼x¼	N
18	.....R	3	3700	173	199	16040	7250	P34x7	DP34x7	Con 18R	6-4x4½	BL	U 4	No	Tim 65001H	WF	H	7.1	37.4	7x3¼x¼	N
19	60	3	3150	190	215	16000	6000	B9.00/20	DB9.00/20	Lyc ASD	6-3¾x4½	CoW4C	U 4	...	Tim 58200H	B	H	7.80	45.6	7x3¼x¼	N
20	65	3-3½	4050	209	221	18500	7800	B9.00/20	DB9.00/20	Con 18R	6-4x4½	BL 51-5	U 4	...	Tim 65200H	W	R	7.50	40.1	8x3¼x¼	N
21	70	3½-4	4650	222	222	23000	8400	B9.75/20	DB9.75/20	Con 20R	6-4⅛x4¾	BL 51-5	U 5	...	Tim 65720H	W	R	8.50	62.9	8x3¼x¼	N
22	C	3½	4750	186	220	19315	8300	B36x8	DP36x8	Con 20R	6-4½x4¾	BL	U 4	No	Tim 65706D	WF	H	7.25	38.8	8x3¼x¼	N
23	100	5-6	5675	223	237	28000	9100	B10.50/20	DB10.50/20	Con 21R	6-4⅝x4¾	BL 55-7	A 7	...	Tim66720DH	W	R	9.0	85.5	9x3¼x¼	N
24	Autocar.....A	1½-2	3200	150	192	12000	5400	P8.25/20	P8.25/20	Own	6-4x4¾	Ow T	U 4	Op	Own SA	SF	H	5.22	27.9	6½x3x⅛	C
25	.....D	2-2½	3500	140	192	16000	5710	P8.25/20	DP8.25/20	Own	6-4x4¾	Ow T	U 4	Op	Own SD	2F	H	6.27	33.5	6½x3x⅛	C
26	(Eng.und.seat) .H	2½-3	4100	114	161	19000	6770	P34x7	DP34x7	Own	6-4½x5½	Ow T	U 4	No	Own H	2F	H	7.67	46.6	7x3½x⅝	C
27	" " " HS	3-3½	4600	114	161	24000	7900	P40x8	DP40x8	Own	6-4½x5½	Ow T	U 4	No	Own C	2F	H	8.46	53.6	7x3½x⅝	C
28	" " " SHS	3-3½	4800	104	161	24000	7900	P40x8	DP40x8	Own	6-4¼x4¾	Ow T	U 4	No	Own C	2F	H	8.46	53.6	7x3½x⅝	C
29	.....N	3-3½	4600	163	242	22000	7990	P9.75/20	DP9.75/20	Own	6-4¼x4¾	Ow T	U 4	Op	Own TE	2F	H	7.09	45.0	8x3x¼	C
30	.....SCHS	3-3½	5100	157	203	24000	8180	P9.75/20	DP9.75/20	Own	6-4¼x4¾	Ow T	U 4	Op	Own C	2F	H	8.57	54.3	9x3x¼	C
31	.....TFA	3½-5	6100	192	242	28000	9300	P10.50/20	DP10.50/20	Own	6-4½x4¾	Ow T	U 4	A 3	Own TF	2F	H	7.20	103	9x3x¼	C
32	C	3½-5	5900	172	186	28000	9705	P10.50/24	DP10.50/24	Own	6-4½x4¾	Ow B	A 4	Op	Own C	2F	H	8.57	52.5	9x3x¼	C
33	.....FE	7	11000	180	234	30000	12300	P10.50/24	DP10.50/24	Ste	6-5¼x6	BL	U 4	A 3	Wis	2F	R	8.9	66.	10½x3x⅛	C
34	Available.....T12	2	1325	Op	Op	11000	3850	B6.50/20	Wau ZK	6-3⅝x4¼	W-GT9	U 4	No	Tim 53200H	SF	H	6.6	42.2	6x2x⅛	C
35	.....T20	2-2½	1975	Op	Op	13500	5000	P7.00/20	DP7.00/20	Wau TL	6-3⅝x4¾	BL 224	U 4	No	Tim 54300H	SF	R	6.8	43.5	6x2¼x⅛	P
36	.....T23	2½	2195	Op	Op	16000	5800	P7.50/20	DP7.50/20	Wau MS	6-3¾x4¾	BL 314	U 4	No	Tim 56200H	SF	R	7.4	48.8	6x2¼x⅛	P
37	.....T25	2½-3	2650	Op	Op	17000	6000	P8.25/20	DP8.25/20	Wau MS	6-3¾x4¾	BL 314	U 4	No	Tim 56200	SF	R	7.4	48.8	7x2½x⅝	P
38	.....T30	3	2685	Op	Op	20500	6500	P8.25/20	DP8.25/20	Wau ML	6-4x4¾	BL 51	U 4	No	Tim 58200H	SF	R	7.8	41.7	7x2½x⅝	P
39	.....T35	3-3½	3125	Op	Op	20500	7400	P9.00/20	DP9.00/20	Wau MK	6-4¼x4¾	BL 554	U 4	No	Tim 58200	SF	R	7.8	54.5	7x2½x⅝	P
40	.....T39	3½	3650	Op	Op	25500	8000	B9.75/20	DB9.75/20	Wau SRL	6-4⅜x5½	BL 615	U 5	No	Tim 65720	WF	R	8.5	55.6	7x2½x⅝	P
41	.....T43	3½-4	3850	Op	Op	25500	8150	B9.75/20	DB9.75/20	Wau SRK	6-4⅝x5½	BL 60	A 7	No	Tim 65720	WF	R	8.5	80.7	7x2½x⅝	P
42	.....T45	4	4985	Op	Op	27000	8800	B9.75/20	DB9.75/20	Wau 6AB	6-4½x5¾	BL 70-7	A 7	No	Tim 65720	WF	R	8.5	80.7	7x2½x⅝	P
43	.....T50	5	5350	Op	Op	33000	9800	B9.75/20	DB9.75/20	Wau 6RB	6-5x5¼	BL 714-703	A 4	A 3	Tim 66720	WF	R	9.5	90.0	7x2½x⅝	P
44	Brockway.....80C	1½-2	1215	149	168	9500	4075	B6.00/20	DB6.00/20	Con 26B	6-3⅜x4	Wa T9	U 4	No	Tim 53200BY	SF	H	5.66	36.2	5⅝x2½x¼	C
45	.....90C	1½-2½	1525	149	168	11500	4355	B6.50/20	DB6.50/20	Con 27B	6-3⅜x4⅝	Wa T9	U 4	No	Tim 54200BY	SF	H	5.83	37.4	7⅛x2½x⅜	C
46	.....92C	2	1800	149	168	12500	4400	B6.50/20	DB6.50/20	Con 27B	6-3⅜x4⅝	Wa T9	U 4	No	Tim 54200BY	SF	R	5.83	37.4	7⅛x2½x⅜	C
47	.....120C	2-3	1990	156	188	15000	5500	B7.00/20	DB7.00/20	Con 30B	6-4x4½	BL 314 (1)	U 4	No	Tim 54300H	SF	H	5.85	38.5	7½x3x¼	C
48	.....140C	2½-3½	2495	156	200	17500	6100	P32x6	DP32x6	Con 30B	6-4x4½	BL 314 (1)	U 4	Op	Wis 4916L	2F	R	6.66	43.5	7½x3x¼	C
49	140	3-4	2935	170	212	19500	6550	P32x6	DP32x6	Con 30B	6-4x4½	BL 314 (1)	U 4	Op	Wis 69317L	2F	R	7.0	46.2	8x3x¼	C
50	.....170C	3-4	3160	170	212	19500	7100	P32x6	DP32x6	Con 33B	6-4¼x4¾	BL 554 (1)	U 4	Op	Wis 69317L	2F	R	6.41	46.6	8x3x¼	C
51	.....175C	3-4	3660	170	224	19500	7200	P34x7	DP34x7	Con 34B	6-4⅜x4¾	Fu VUOG	U 5	Op	Wis 69317L	2F	R	6.41	46.6	8x3x¼	C
52	.....195C	3½-5	3820	170	224	22000	8100	P34x7	DP34x7	Con 33B	6-4¼x4¾	BL 554 (1)	U 4	Op	Wis 1237H	2F	R	7.2	52.4	8¼x3x⅛	C
53	.....220C	5-7	4560	170	224	25000	8675	P36x8	DP36x8	Con 34B	6-4⅜x4¾	BL 554 (1)	U 4	Op	Wis 1627KH	2F	R	6.96	50.7	8¼x3x⅛	C
54	.....260C	7-10	5850	212	240	28000	9400	B10.50/22	DB10 50/22	Con 35B	6-4½x5¼	Fu MHU	U 4	Op	Wis 1738H	2F	R	8.05	50.7	8¼x3x⅜	C
55	Chevrolet. Ind.Com.	½	355	109	109	4000	1880	B4.75/19	B4.75/19	Own	6-3⅛x3¾	Own Ind	U 3	No	Own Int	S½	U	4.1	13.6	5x2¼x⅛	C
56	(2).....Utility	1½	520	131	131	7400	2375	P30x5	P30x5	Own	6-3⅛x3¾	Own	U 4	No	Own	S½	U	5.43	33.5	6x2⅜x⅛	L
57	.....UL Dual	1½	575	157	157	8200	2890	P30x5	DP30x5	Own	6-3⅛x3¾	Own	U 4	No	Own	S½	U	5.43	33.5	7x2⅜x⅛	L
58	Chicago.....1-15-E	2	1395	150	174	11500	4200	B6.50/20	DB6.00/20	Wau ZK	6-3⅝x4¼	BL 224	U 4	No	Tim 53200H	BF	R	6.6	40.9	7x4x¼	P
59	.....1-25-E	2½	1885	160	208	13500	5100	B7.00/20	DB7.00/20	Wau TK	6-3⅝x4¾	BL 224	U 4	No	Tim 54200H	BF	R	6.8	42.0	7x4x¼	P
60	.....1-30-E	3	2250	160	208	15500	5400	B7.50/20	DB7.50/20	Wau MK	6-4¼x4¾	BL 4-314	U 4	No	Tim 56200H	BF	R	6.2	41.0	7x4x¼	P
61	.....1-35-E	4	2600	160	208	17500	5800	B8.25/20	DB8.25/20	Wau MK	6-4¼x4¾	BL 314	U 4	No	Tim 58200H	BF	R	6.8	44.0	7x4x¼	P
62	.....1-50-B	6	3950	140	236	24000	7780	B9.75/20	DB9.75/20	Wau 68RL	6-4½x5½	BL 60 Max	A 7	No	Tim 65720H	WF	R	7.75	73.6	6x3½x⅛	C
63	Coleman.....C30	2-2½	3550	120	144	12800	7200	B9.00/20	Bud DW6	6-3¾x5	Fu GU14	U 4	A 2	Wis		2F	..	8.05	154	10x2½x⅜	.....
64	.....C40	3	4950	130	180	17000	8000	B9.75/24	B9.75/24	Bud DW6	6-3¾x5	Fu RU16	U 4	A 2	Wis	2F	H	8.33	159	12x2½x⅜	C
65	.....D-40XX	3½-5	5250	130	184	21100	9100	B10.50/24	B10.50/24	Bud BA6	6-4½x5¼	Fu RU16	U 4	A 2	Wis	2F	H	8.33	159	12x2½x1¼	C
66	.....X100	5-6	7200	144	184	24300	10600	P10.50/24	P10.50/24	Bud BA6	6-4½x5½	Fu RU16	U 4	A 2	Wis 122	2F	H	8.54	140	14x2⅝x1¼	C
67	.....X100F	5-7½	7800	144	184	29800	10800	B10.50/24	B10.50/24	Bud GF6	6-4¾x6	Fu HU16	U 4	A 2	Wis 122	2F	H	8.54	175	14x2⅝x1¼	C
68	.....F200	7½	9700	144	148	32000	13000	B10.50/24	DB10.5/24	Sterling	6-5¼x6	BL 714	U 4	A 2	Wis HD	2D	H	8.5	180	16x3x1¼	C
69	Commerce—see Gar	ford																			
70	Concord.....GX-6	2-2½	3000	163	185	11640	5140	P32x6	DP32x6	Bud DW6	6-3¾x5	BL 35	U 4	No	Wis 4610	RF	H	6.8	36.4	6x3x¼	C
71	.....JX-6	2½-3	4200	154	174	17200	6700	P34x7	DP34x7	Bud DW6	6-3¾x5	BL 51	U 4	No	Tim 65706D	WF	R	9.3	49.7	7x3x¼	C
72	.....JLX-6	3-3½	4500	202	222	19400	7000	P34x7	DP34x7	Bud BA6	6-4¼x5½	BL 51	U 4	No	Tim 66706D	WF	R	6.1	32.8	7x3½x⅛	C
73	Condor.....CAV6	1-1½	825	131	180	8000	3550	B6.00/20	B6.50/20	Con 25A	6-3¾x4	WG T9	U 4	No	Tim 53200H	BF	H	5.66	36.3	6x2¾x¼	C
74	.....CBV4	1½-2	885	131	210	10000	3525	B6.00/20	DB6.50/20	Con W10	4-3⅞x4¼	WG T9	U 4	No	Tim 53200H	BF	H	5.66	36.3	6x2¾x¼	C
75	.....CB	1⅝	1460	140	174	12000	4150	B6.50/20	DB6.50/20	Lyc 4SL	6-3¼x4½	Cov A4J	U 4	No	Tim 54200H	BF	H	5.83	37.1	6x2½x¼	C
76	.....CCV4	2-3	1085	131	210	12000	3900	B6.50/20	DB6.50/20	Con W20	4-4¼x4¼	WG T9	U 4	No	Tim 54200H	BF	H	5.8	37.0	10x2¾x¼	P
77	.....CCV6	2-3	1230	131	210	12000	4150	B6.50/20	DB6.50/20	Con 16C	6-3⅜x4⅝	WG T9	U 4	No	Tim 54200H	BF	H	5.8	37.0	10x2¾x¼	P
78	CC	2-3	1760	160	224	14000	4800	B7.00/20	DB7.00/20	Lyc AS	6-3⅝x4½	BL	U 4	No	Tim 54200H	BF	H	5.8	31.0	7x2½x¼	C
79	.....CD	2½-4	1950	160	224	17000	5200	B7.50/20	DB7.50/20	Lyc ASD	6-3¾x4½	BL	U 4	No	Tim 56200H	BF	H	5.2	31.7	7x2½x¼	C
80	.....CE	3-4½	2530	160	224	20000	5950	B8.25/20	DB8.25/20	Lyc TS	6-3⅞x5	BL	U 4	No	Tim 58200H	BF	H	5.57	35.6	12x2½x¼	C
81	.....CEB	3	3590	190	190	17000	7200	B7.50/20	DB7.50/20	Con 20R	6-4½x4¾	Co Rus-4	U 4	No	Tim 58200H	BF	H	4.55	29.1	8¾x3¼x¼	C
82	.....CGB	4-6	4345	190	210	20000	7710	B8.25/20	DB8.25/20	Con 21R	6-4⅝x4¾	BL	U 4	No	Wis 69317	2F	H	4.3	27.9	8¾x3¼x¼	C
83	.....CHB	5	6545	210	236	24000	10100	B9.00/20	DB9.00/20	Con 16H	6-4¾x5¾	Fu HU16	U 4	No	Wis12527KW	2F	H	4.00	25.2	8¾x3¼x¼	C
84	.....CGW	5-7½	5175	157	240	28000	9500	B9.00/20	DB9.00/20	Con21R	6-4⅝x4¾	BL	U 4	No	Wis 1627K	2F	H	6.3	41.	7¼x3x⅛	C
85	Corbitt(3).....7B6	1½	1705	150	170	8500	3410	P32x6	P32x6	Con 18E	6-3⅜x4	BL 214	U 4	No	Tim 52200H	BF	H	5.8	29.0	5⅝x2½x¾	T
86	.....8B4	1½	980	134	134	8500	3200	B6.00/20	P32x6	Con W10	4-3⅞x4¼	Ow	U 4	No	Own	SF	H	5.4	38.4	5⅝x3x¼	T
87	.....8B6	1½	1080	136	136	8500	3275	B6.00/20	P32x6	Con 25A	6-3⅝x4	Ow	U 4	No	Own	SF	H	5.4	38.4	5⅝x3x¼	T
88	.....10B6	1½-2	1310	.....	.....	10100	.....	B6.50/20	DB6.50/20	Con 25A	6-3⅜x4	BL 214	U 4	No	Tim 53200	SF	H	Op	Op	5⅞x3½x¼	T
89	.....9B6	1½-2½	2185	152	183	11900	4200	P32x6	DP32x6	Con 16C	6-3⅜x4⅝	BL 224	U 4	No	Tim 54200H	BF	H	5.57	27.8	7x3½x¼	T
90	.....12B6	2-3	3060	163	220	14700	4870	B7.50/20	DB7.50/20	Con E600	6-3⅛x4½	BL 314	U 4	No	Tim 56200H	BF	H	Op	Op	7x3½x¼	T
91	.....12W6	2-3	2950	165	220	14700	4910	B7.50/20	DB7.50/20	Con E600	6-3⅛x4½	BL 314	U 4	No	Tim 64800H	WF	H	Op	Op	7x3½x¼	T
92	.....15B6	2½-3½	3740	174	220	17500	5870	P34x7	DP34x7	Con E601	6-3⅜x4½	BL 514	U 4	No	Tim 58200	BF	H	Op	Op	7x3½x¼	T
93	.....15W6	2½-3½	3850	183	224	17500	6160	P34x7	DP34x7	Con E601	6-3⅜x4½	BL 514	U 4	No	Tim 65200	w/2	H	Op	Op	7x3½x¼	T
94	18	2½-4	4400	178	230	21600	8100	P36x8	DP36x8	Con E602	6-4½x4½	BL 51	U 4	No	Tim 65706H	w/2	H	Op	Op	8x3½x¼	T
95	24	3½-5	5115	195	230	24800	9200	B9.75/20	DB9.75/20	Con 20R	6-4½x4¾	BL 60	A 7	No	Tim66704DH	w/2	H	Op	Op	8x3½x¼	T
96	33	5-7½	6160	195	230	33200	10000	P40x10	DP40x10	Con 21R	6-4⅝x4¾	BL 60 Max	A 7	No	Tim68720TW	w/2	H	Op	Op	8x3⅜x⅛	T
97	.....(T) 10B6T	3-5	1650	.....	.....	10100	.....	B6.50/20	DB6.50/20	Con 16C	6-3⅜x4⅝	BL 224	U 4	No	Tim 53200H	SF	H	Op	Op	5⅞x3½x¼	T
98	.....(T) 9B6T	4-6	2600	.....	.....	11900	.....	B7.50/20	DB7.50/20	Con E600	6-3⅛x4½	BL 324	U 4	No	Tim 54200H	BF	H	Op	Op	7x3½x¼	T
99	.....(T) 12B6T	4-7	3465	.....	.....	.....	.....	B8.25/20	DB8.25/20	Con E602	6-4½x4½	BL	U 4	No	Tim 56200	BF	H	.....	.....	7x3½x¼	T
100	.....(T) 15B6T	5-8	4875	.....	.....	17500	.....	B9.00/20	DB9.00/20	Con 20R	6-4½x4¾	BL 525	U 5	No	Tim 58200	BF	H	Op	Op	7x3½x¼	T
101	.....(T) 18D6T	8-10	5500	.....	.....	21600	.....	B9.75/20	DB9.75/20	Con 22R	6-4½x5¼	BL 615	U 5	No	Tim 75708H	2	H	Op	Op	8x3½x¼	T
102	.....(T) 24D6T	10-15	6500	.....	.....	24800	.....	B10.50/20	DB10.50/20	Con 16H	6-4¾x5¾	BL 7212	U 4	A 3	Tim 66720W	2	H	Op	Op	8x3x⅛	C

TRUCK SPECIFICATIONS TABLE

+ FOR MEANING OF ABBREVIATIONS AND EXPLANATION OF REFERENCE MARKS SEE PAGE 72

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELECTRICAL: Ignition System Make	ELECTRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location and Type	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Type, Location	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	SPRINGS: Auxiliary Type
1	468	4.4	322	43.3	120–2200	H	C	A	4–2¼	10⅜	CC	Ha	Zen	V	DR	DR	P.BL	Lo	Spi	Tim 27451	Ros	O4IA	720	A	CD	172	102	33½	42x3	56x4	½
2	707	4.4	500	60.	175–2200	H	C	A	7–3¼	14⅜	CC	Ha	Zen	M	DR	DR	dpLo	Lo	Spi	Tim 27451	Ros	O4IA	720	A	CD	172	102	33½	42x3	56x4	½
3	707	4.4	500	60.	175–2200	H	C	A	7–3¼	14⅜	CC	Ha	Zen	V	DR	DR	dpLo	Lo	Spi	Tim 27451	Ros	O4IA	816	A	CD	172	102	33½	42x3	56x4	½
4	572	4.5	360	48.6	115–1600	L	G	C	4–3	10½	FP	On	Zen	V	DR	DR	P.BB	Yo	Spi	Tim 30000H	Ros	L4IH	380	G	TX	Opt	Opt	31½	40x2½	50x3	½
5	248	5.0	150	27.3	65–2600	L	G	C	7–2⅝	10⅜	PC	....	Zen	M	DR	DR	P.BB	Yo	Spi	Tim 12703H	Ros	L4IHV	452	G	TX	Opt	Opt	31½	40x2½	50x3	½
6	298	4.7	192	33.7	66–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim 33020H	Ros	L4IHV	578	G	TX	Opt	Opt	31½	40x2½	62¾x2½	N
7	339	4.7	225	38.4	73–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim 33020H	Ros	L4IHV	658	G	TX	Opt	Opt	31½	40x2½	62¾x2½	N
8	339	4.7	225	38.4	73–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Shu 5572	Ros	L4IHV	768	G	TX	Opt	Opt	31½	41x2½	62¾x2½	N
9	360	4.7	238	40.3	80–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Shu 637	Ros	L4IHV	893	G	TX	Opt	Opt	31½	41x2½	62¾x3	N
10	428	4.7	280	46.	93–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim 14703	Ros	L4IHV	658	G	TX	Opt	Opt	31½	41x2½	62¾x3	N
11	478	4.7	318	51.2	103–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim 14703	Ros	L4IHV	658	G	TX	Opt	Opt	31½	41x2½	62¾x3	N
12	478	4.4	318	51.2	103–2200	L	G	C	7–3	15	PC	Mo	Zen	M	AL	AL	D.Fu	Yo	Spi	Tim 14703	Ros	L4IHV	658	G	TX	Opt	Opt	31½	41x2½	62¾x3	N
13	201	5.4	140	21.6	64–2800	L	G	C	4–2⅝	....	CC	....	Zen	G	DR	DR	P.BB	Fe	Spi	Tim 11710H	Ros	L4IH	437	p	....	118	66½	34	38x2¼	50x2½	N
14	201	5.4	140	21.6	64–2800	L	G	C	4–2⅝	....	CC	....	Zen	G	DR	DR	P.BB	Fe	Spi	Tim 11710H	Ros	L4IH	450	p	....	142	81½	34	38x2¼	50x7½	..
15	224	4.7	146	25.3	62–2800	L	G	C	4–2⅝	....	CC	....	Zen	G	AL	AL	P.BB	Pe	Spi	Tim 31000H	Ros	L4IH	450	C	....	149	92	34	39x2½	56x3	..
16	278	4.9	188	31.6	85–3000	L	G	C	4–2⅝	....	CC	....	Zen	M	AL	AL	P.BB	Pe	Spi	Tim 31000H	Ros	L4IH	540	C..	....	173	105	34	39x2½	56x3	..
17	298	4.9	188	33.7	85–2800	L	G	C	4–2⅝	....	FP	Ha	Zen	V	DR	AL	D.BL	Yo	Spi	Tim 14703H	Ros	L4IHV	275	p	TD	148½	90½	34	41½x3	54x3½	¼
18	340	4.2	212	38.4	82–2400	H	C	B	7–2¾	12⅛	PC	Ha	Zen	V	AL	AL	D.BL	Pe	Spi	Tim 33010H	Ros	L4IH	657	C..	....	173	106	34	39x2½	56x3	..
19	298	4.9	188	33.7	85–2800	L	G	C	4–2⅝	....	FP	Ha	Zen	V	AL	AL	D.BL	Pe	Spi	Tim 35000H	Ros	L4IH	657	C	....	197	119	34	40x3	56x3	..
20	339	4.2	212	38.4	81–2500	H	C	C	7–2¾	....	FP	Ha	Zen	V	AL	AL	D.BL	Pe	Spi	Tim 35000H	Ros	L4IH	765	C	....	221	132	34	40x3	56x3½	..
21	380	4.2	231	40.8	87–2400	H	C	C	7–2¾	....	FP	Ha	Zen	V	DR	AL	D.BL	Yo	Spi	Tim 15302	Ros	T2IMV	500	C	RI	169½	103½	34	41½x3	54x3½	¼
22	381	4.2	238	40.8	82–2400	H	C	B	7–2¾	12⅛	PC	Ha	Zen	V	AL	AL	D.BL	Pe	Spi	Tim 26450H	Ros	L4IH	864	C	....	221	133	34	40x3	56x4	..
23	428	4.2	270	45.9	101–2400	H	C	C	7–2¾	....	FP	Ha	Zen	V	AL	AL	D.BL	Pe	Spi	Tim 14703H	Ros	LO4IDV	460	C	2I	115¼	63¾	34	40x2½	54x3	N
24	358	5.2	240	38.4	82–2400	L	G	C	7–3	13¼	FP	Pe	Str	V	DR	DR	dpLo	Pe	Spi	Tim 14703H	Ros	LO4IDV	460	C	2I	115¼	63⅜	34	40x2½	54x3	½
25	358	5.2	240	38.4	82–2400	L	G	C	7–3	13¼	FP	Pe	Str	V	DR	DR	dpLo	Pe	Spi	Tim 14703H	Ros	LO4IDV	460	C	2I	115¼	63⅜	34	40x2½	54x3	½
26	358	5.2	240	38.4	82–2400	L	G	C	7–3	13¼	FP	Pe	Str	V	DR	DR	dpLo	Pe	Spi	Tim 14703H	Ros	LO4IDV	460	C	2I	115¼	63⅜	34	40x2½	54x3	½
27	350	5.1	218	32.4	45–1450	L	G	A	2–2¼	....	SP	Bf	Str	G	AB	LN	dpLo	Ow	Spi	Own J	Ros	O2IM	434	C	2I	135½	76	34½	41x2¼	53x3	½
28	350	5.1	218	32.4	45–1450	L	G	A	2–2¼	....	SP	Bf	Str	G	AB	LN	dpLo	Ow	Spi	Own J	Ros	O2IM	516	C	2I	135½	76	34½	41x2¼	53x3	½
29	404	5.1	271	43.4	92–2400	L	G	C	7–3	14½	FP	Pe	Str	V	DR	LN	dpLo	Ow	Spi	Own J	Ros	O2IM	516	C	2I	135½	76	34½	41x2¼	53x3	½
30	404	5.1	271	43.4	92–2400	L	G	C	7–3	14½	FP	Pe	Str	V	DR	LN	dpLo	Ow	Spi	Tim 35000D	Ros	LO4IDV	574	C	FD	150	86½	34½	40x2½	54x3	½
31	404	5.1	271	43.4	92–2400	L	G	C	7–3	14½	FP	Pe	Str	V	DR	LN	dpLo	Ow	Spi	Own J	Ros	LO4IDV	502	C	FD	133½	74¾	34½	41x2½	53x3	½
32	404	5.1	271	43.4	92–2400	L	G	C	7–3	14½	FP	Pe	Str	V	DR	LN	dpLo	Ow	Spi	Tim 26450	Ros	LO4IDV	602	C	TD	175½	105	34½	42½x3	54¾x4	½
33	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Pe	Str	V	DR	LN	dpLo	Ow	Spi	Own CL	Ros	LO4IDV	670	C	TD	158⅞	88½	34½	42½x3	54¾x4	½
34	453	5.1	309	48.6	101–2400	L	G	C	7–3	14½	FP	Pe	Str	V	DR	LN	dpLo	Ow	Spi	Tim	Ros	T4IA	674	C	FD	146	84	34¼	42½x3	54¾x4	½
35	780	4.6	475	66.1	156–1800	L	G	A	7–3	16½	FP	St	Ze2	M	NE	LN	dpBL	GO	Spi	Tim	Ros										
36	221	4.9	144	27.3	63–3000	L	G	C	4–2⅜	6⅛	FP	No	Sch	M	DR	DR	P.Jo	Ch	Blo	Tim 30000H	Ros	L4IH	269	E	TX	Opt	Opt	31¾	38x2¼	48x2½	½
37	255	5.1	175	27.3	69–2600	L	G	C	4–2⅜	7⅝	FP	No	Sch	M	DR	DR	D.BL	Yo	Blo	Tim 31000	Ros	L4IH	330	E	TX	Opt	Opt	31¾	38x2¼	50x3	½
38	315	4.6	200	33.8	73–2300	L	G	C	7–2⅝	12½	CC	Wa	Sch	M	DR	DR	D.BL	Yo	Blo	Tim 33000	Ros	L4IH	330	E	TX	Opt	Opt	31¾	38x2¼	50x3	½
39	315	4.6	200	33.8	73–2300	L	G	C	7–2⅝	12½	CC	Wa	Sch	M	DR	DR	D.BL	Yo	Blo	Tim 35000	Ros	L4IH	330	E	TX	Opt	Opt	31¾	38x2¼	50x3	½
40	358	4.4	230	38.4	80–2500	L	G	C	7–2⅝	12½	CC	Wa	Sch	M	DR	DR	D.BL	Yo	Blo	Tim 35000	Ros	L4IH	576	E	FD	Opt	Opt	32	40x2½	50x3	½
41	381	4.4	242	40.8	85–2500	L	G	C	7–2⅝	12½	CC	Wa	Sch	M	DR	DR	D.BL	Yo	Blo	Tim 35000	Ros	L4IH	665	E	FD	Opt	Opt	32	40x2½	50x3	½
42	462	4.5	305	45.9	102–2400	L	G	C	7–3	13½	CC	Wa	Sch	M	DR	DR	D.BL	Yo	Blo	Tim 35000	Ros	L4IH	665	E	FD	Opt	Opt	32	40x2½	50x3	½
43	517	4.5	335	51.3	110–2300	L	G	C	7–3	13½	CC	Wa	Sch	M	DR	DR	D.BL	Yo	Blo	Tim 26450	Ros	L4IHV	492	E	FD	Opt	Opt	32	40x2½	50x3	½
44	549	4.5	330	48.6	100–2000	L	G	C	4–3½	11½	CC	Wa	Sch	M	DR	DR	D.BL	Yo	Blo	Tim 26450H	Ros	L4IHV	487	E	FD	Opt	Opt	32	40x2½	50x3	½
45	677	4.4	440	60.0	125–1900	L	G	C	4–3½	11½	CC	No	Zen	M	AL	AL	P.BB	GO	Spi	Col 4002	Ros	CB4IM	248	G	TX	113	67	34	37x2¼	52x2½	½
46	214	4.9	136	27.3	61–3000	L	C	A	4–2⅜	6⅜	CC	No	Zen	M	AL	AL	P.BB	GO	Spi	Col 4002	Ros	CB4IM	280	G	TD	113	67	34	37x2¼	52x2½	½
47	248	4.9	150	27.3	65–2700	L	C	C	7–2⅜	10⅛	CC	No	Zen	M	AL	AL	P.BB	GO	Spi	Col 4002	Ros	CB4IM	280	G	TD	113	67	34	37x2¼	52x2½	½
48	248	4.9	150	27.3	65–2700	L	C	C	7–2⅜	13⅛	CC	No	Zen	M	AL	AL	D.BL	GO	Spi	Col 5500A2	Ros	L4IH	353	G	CD	108	69	34	40x2½	54x2½	½
49	311	4.2	196	38.4	73–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Col 5500A2	Ros	L4IHV	386	G	CD	108	69	34	40x2½	54x3	½
50	311	4.2	196	38.4	73–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 5582B	Ros	L4IHV	380	G	CD	142	84	34	40x2½	54x3	½
51	311	4.2	196	38.4	73–2400	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 5582B	Ros	L4IHV	380	G	CD	142	84	34	40x2½	54x3	½
52	381	4.4	246	40.8	89–2200	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 5582B-26	Ros	L4IHV	380	G	CD	142	84	34	40x2½	54x3	½
53	427	4.2	268	45.9	100–2200	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 5582B-26	Ros	L4IHV	471	G	CD	142	84	34½	40x2½	54x3	½
54	381	4.4	246	40.8	89–2200	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu 5592B-12	Ros	L4IHV	546	G	CD	142	84	34½	40x2½	54x3	½
55	427	4.2	268	45.9	100–2200	H	C	N	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.Fu	GO	Spi	Shu	Ros	L4IHV	546	G	CD	210	125	34¼	40x2½	54x3	½
56	501	4.3	340	48.6	120–2200	H	C	A	7–2¾	13⅛	CC	KP	Zen	M	AL	AL	D.Fu	GO	Spi	Own Ind.	Own	O4IM	101	p	2I	....	28½	....	36x1¾	54x1¾	N
57	194	5.2	133	26.3	53–2800	H	G	C	3–2⅛	5⅛	PG	No	Car	P	DR	DR	P.Ow	Ha	Own	Own	Own	O4IM	170	p	2I	86⅜	51⅛	37	....	....	..
58	194	5.2	133	26.3	53–2800	H	G	C	3–2⅛	5⅛	PG	No	Car	P	DR	DR	P.Ow	Ha	Own	Own	Own	O4IM	170	p	2I	112⅛	77¼	37	36x1¾	45x2½	N
59	194	5.2	133	26.3	53–2800	H	G	C	3–2⅛	5⅛	PG	No	Car	P	DR	DR	P.Ow	Ha	Own	Own	Own	O4IM	170	p	2I	....	....	..	....	....	..
60	222	4.9	147	27.3	61–2800	L	G	C	4–2⅜	6⅛	FP	Wa	Zen	M	DR	DR	D.BL	Ch	Spi	Tim 30000H	Ros	L4IH	169	p	TX	Opt	Opt	33½	41½x2½	54x3	N
61	381	4.4	242	40.8	85–2500	L	G	C	7–2⅜	12½	FP	Wa	Zen	M	DR	DR	D.BL	Ch	Spi	Tim 31000H	Ros	L4IH	281	C	TX	Opt	Opt	33½	41½x2½	54x3	N
62	381	4.4	242	40.8	85–2500	L	G	C	7–2⅜	12½	FP	Wa	Str	M	AL	AL	D.BL	Ch	Spi	Tim 31000H	Ros	L4IH	328	C	TX	Opt	Opt	33½	41½x2½	54x3	N
63	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	FP	Bu	Str	V	DR	DR	D.Fu	Pe	Spi	Tim 33020H	Ros	L4IHV	394	C	TX	Opt	Opt	33½	41½x2½	56x3	N
64	331	4.6	200	27.7	73–2400	L	G	C	7–3	9⅞	FP	No	Str	V	DR	DR	D.Fu	Pe	Spi	Tim 26450	Ros	L2IH	311	C	TD	Opt	Opt	34	44½x2½	56x3	N
65	330	4.6	200	33.7	73–2400	L	G	C	7–3	9	FP	No	Str	V	DR	DR	D.Fu	Pe	Spi	Wis C15	Ros	L4IH	....	P	TD	108	78	30	48x3	48x3	C
66	330	4.6	200	33.7	73–2400	L	G	C	4–2½	9⅞	FP	Bu	Str	V	DR	DR	D.Fu	Pe	Spi	Wis	Ros	W2/4IM	....	P	TD	144	89	30	48x3	48x3	C
67	411	5.3	273	40.8	105–2200	L	G	C	4–2½	9⅞	FP	Bu	Str	V	DR	DR	D.Fu	Pe	Spi	Wis C25	Ros	W2/4IM	....	P	TD	144	89	30	48x3	48x3	C
68	411	5.3	273	40.8	105–2200	L	G	C	4–2½	9⅞	FP	Bu	Str	V	DR	DR	D.Fu	Pe	Spi	Wis 122F	Ros	W2/4IM	....	G	TD	168	105	30	48x3½	52x3½	C
69	638	4.9	410	54.1	126–1850	L	G	C	4–3	10⅛	FP	Bu	Str	V	DR	DR	D.Fu	Pe	Spi	Wis 122F	Ros	W2/4IM	....	G	TD	168	105	30	48x3½	52x3½	C
70	778	4.3	475	66.1	177–2200	L	G	A	7–3	13½	FP	St	Sch	P	NE	NE	BL	Pe	Spi	Wis HD	Ros	O2/4IA	....	G	TD	Opt	Opt	34	48x4	52x4	..
71																															
72	330	4.6	205	33.7	73–2100	L	G	C	4–2½	9	PC	No	Zen	V	AL	AL	D.BL	Ow	Blo	Tim 15300	Ros	W2IMV	370	G	TD	Opt	85	32¼	36x2½	46x2½	½
73	330	4.6	205	33.7	73–2100	L	G	C	4–2½	9⅜	PC	No	Zen	V	AL	AL	D.BL	Ow	Blo	Tim 15300H	Ros	T2IMV	248	p	TD	Opt	Opt	32¼	38½x2½	50x3½	½
74	330	4.6	205	33.7	73–2100	L	G	C	4–2½	9⅜	PC	No	Zen	V	AL	AL	D.BL	Ow	Blo	Tim 15300	Ros	T2IMV	248	p	TD	Opt	Opt	32¼	38½x2½	50½x3	½
75	411	4.7	270	40.8	85–2000	L	G	C	4–2⅜	9⅜	FP	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81½	51¾	34	36x2¼	45x2½	½
76	214	5.3	142	27.4	71–3200	L	G	C	4–2⅜	6⅜	FP	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81¾	51½	34	36x2¼	45x2½	½
77	200	4.7	121	24.0	50–2800	L	G	C	A3–2⅜	5⅞	PC	No	Zen	V	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	249	p	FD	94	60⅜	34	40x2½	50x2½	½
78	224	4.7	146	25.3	61–2900	L	G	C	4–2⅜	8⅛	PC	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	269	p	FD	81	51¾	34	40x2¼	45x2½	½
79	227	4.7	136	27.2	55–2400	L	G	C	3–2⅛	5½	PC	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	81	51¾	34	36x2¼	45x2½	½
80	248	5.0	150	27.2	70–3000	L	G	C	7–2⅜	10	FP	Mo	Til	M	AL	AL	P.BL	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	120	77¼	34	42x2¼	56x3	½
81	278	4.7	182	31.5	85–3300	L	G	C	A4–2⅜	9½	PC	Mo	Til	M	AL	AL	P.BL	Pe	Blo	Col 5500	Ros	L4IHV	330	C	FD	120	77¼	34	42x2¼	56x3	½
82	299	5.0	198	33.7	85–2800	L	G	C	4–2⅜	9½	PC	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Col 5500	Ros	L4IHV	375	C	FD	127	74¾	34	42x2¼	56x3	½
83	354	4.8	245	36.2	98–2700	L	G	C	A4–2¾	10	PC	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Eat 423	Ros	L4IHV	375	C	FD	156	90	41½	44x2½	60x3	½
84	381	4.3	238	40.8	88–2400	H	C	C	7–2¾	13⅛	PC	Mo	Zen	M	AL	AL	P.BL	Pe	Blo	Eat 423	Ros	L4IHV	375	C	FD	176⅞	119⅞	41½	44x2½	60x3	½
85	428	4.1	268	45.9	100–2200	H	C	C	7–2¾	13⅛	PC	Mo	Zen	M	AL	AL	D.Fu	Pe	Blo	Tim	Ros	4IA	576	C	FD	198⅛	141½	41½	44x3	60x4	½
86	611	4.1	382	54.1	127–2300	L	G	A	7–3	13¼	PC	Pe	Zen	M	AL	AL	P.BL	Pe	Blo	Tim 27450	Ros	4IA	576	C	FD	128⅛	73⅞	36	46x3	58x3½	½
87	428	4.1	268	45.9	100–2200	H	C	C	7–2¾	13⅛	PC	Mo	Zen	M	AL	AL	P.BL	Pe	Spi	Tim 11703H	Ros	L4IH	380	p	TX	Opt	Opt	34	38x2½	50x2½	½
88	214	....	142	27.3	61–3000	L	C	A	7–2⅜	8⅛	FP	No	Zen	M	DR	DR	P.BB	Pe	Spi	Own	Ros	L4IH	377	p	TX	96	53	34	38x2¼	50x2½	½
89	200	4.7	125	24.0	49–2800	L	C	A	3–2⅛	5⅜	FP	No	Zen	M	DR	DR	P.BB	Pe	Spi	Own	Ros	L4IH	377	p	TX	96	55	34	38x2¼	50x2½	N
90	214	4.9	142	27.3	61–3000	L	C	A	4–2⅜	6⅜	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 30020H	Ros	L4IH	380	p	TX	Opt	Opt	34	38x2¼	50x2½	½
91	214	4.9	142	27.3	61–3000	L	C	C	4–2⅜	6⅜	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IH	452	A	TX	Opt	Opt	34	38x2¼	54x3	½
92	248	5.0	150	27.3	65–2700	L	C	C	7–2⅜	10⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	578	A	TX	134	82	34	40x2½	54x3	½
93	288	4.6	180	32.6	72–2500	L	C	C	7–2⅜	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	578	A	TX	134	82	34	40x2½	54x3	½
94	288	4.6	180	32.6	72–2500	L	C	C	7–2⅜	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	660	A	TD	144	88	34	40x2½	54x3	½
95	318	4.5	200	36.0	80–2500	L	C	C	7–2⅜	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	660	A	TD	144	97	34	40x2½	54x3	½
96	318	4.5	200	36.0	80–2500	L	C	C	7–2⅜	11⅛	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 26450H	Ros	L4IHV	768	A	TD	132	92	34	40x2½	54x3	½
97	360	4.2	240	40.8	88–2500	L	C	C	7–2⅜	12⅛	FP	No	Zen	O	DR	DR	D.BL	Pe	Spi	Tim 26450H	Ros	T4IHV	876	A	2I	162	109	34	46x3	60x3½	½
98	381	4.2	236	40.8	88–2400	H	C	C	7–2¾	13¼	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim27450TW	Ros	T4IA	921	A	2I	162	109	34	46x3	56x4	½
99	427	4.2	268	45.9	112–2400	H	C	C	7–2¾	13¼	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 30020H	Ros	L4IHV	380	p	TX	Opt	Opt	34	38x2¼	50x2½	½
100	248	5.0	150	27.3	65–2700	L	C	C	7–2⅜	10⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IHV	452	A	TX	Opt	Opt	34	38x2¼	54x3	½
101	288	4.6	180	32.6	72–2500	L	C	C	7–2⅜	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	578	A	TD	....	....	34	40x2½	54x3	½
102	360	4.4	240	40.8	88–2500	H	C	C	7–2¾	11⅛	FP	No	Zen	H	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IHV	660	A	TD	....	....	..	40x2½	54x3	½
103	381	4.2	236	40.8	88–2400	H	C	C	7–2¾	13⅛	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 35000A	Ros	L4IHV	768	A	TD	....	....	34	40x2½	54x3	½
104	500	4.2	340	48.6	121–2400	H	C	A	7–2¾	13⅛	FP	No	Zen	M	DR	DR	dpBL	Pe	Spi	Tim 26450W	Ros	Ws4IA	921	A	TD	....	....	34	46x3	60x3½	½
105	611	4.5	384	54.1	127–2300	L	G	A	7–3	13¼	FP	....	....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Line Number	MAKE AND MODEL	GENERAL (See Keynote)					TIRE SIZE		MAJOR UNITS.								FRAME		
									ENGINE		TRANSMISSION		REAR AXLE			GEAR RATIOS			
		Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Mode	Gear and Type	Drive and Torque	In High	In Low	Side Rail Dimensions	Type
1	Day Elder(4)....60	1	825	135	156	6000	3300	B6.00/20	B6.50/20	Con 25A	6-3⅛x4	WG T9	U 4	No	Tim 53200H	B¾	H	5.6	36.3	5¼x3¾x⅛	C
2	85	1½–2	1395	135	168	8500	3850	B6.00/20	DB6.50/20	Con 16C	6-3⅛x4⅛	WG T9	U 4	No	Tim 53200H	BF	H	6.60	42.3	5½x3¾x⅛	C
3	110	2	1825	156	186	11000	4800	B7.00/20	DB7.00/20	Con 16C	6-3⅛x4⅛	WG T9	U 4	No	Tim 54200H	BF	H	6.80	44.9	7x3¾x¼	C
4	130	2½	2225	157	199	6600	6600	B7.50/20	DB7.50/20	Con 16R	6-4x4½	BL 314	U 4	No	Tim 56200H	BF	H	6.16	40.7	7x4x¼	C
5	160	3	2795	156	204	16000	6800	B7.50/20	DB9.00/20	Con 18R	6-4x4½	BL 51	U 4	No	Tim 65200H	WF	R	6.75	36.1	9x3½x¼	C
6	200	4	3295	156	204	20000	7600	B9.00/20	DB9.00/20	Con 18R	6-4x4½	BL 55	U 4	No	Tim 65720H	WF	R	7.75	43.5	9x3½x¼	C
7	240	5	4295	162	202	24000	9500	P38x9	DP38x9	Con 21R	6-4⅜x4¾	BL 60	A 4	No	Tim 66720H	WF	R	9.50	50.8	10x3⅛x⅛	C
8	Diamond T...216B	1½	795	135	158	8500	3300	B6.50/20	B6.50/20	Her JXA	6-3⅛x4¼	WG	U 4	No	Cla B375	SF	H	Opt.	Opt	6½x2½x⅜	T
9	316	2	1195	155	167	11500	4400	B6.50/20	DB6.50/20	Her JXB	6-3⅛x4½	WG	U 4	No	Cla B613	SF	H	Opt.	Opt	7x3½	T
10	.....303F	2–2½	1795	160	185	13500	5100	B7.00/20	DB7.00/20	Her WXB	6-3¾x4½	Co	U 4	No	Cla B613	SF	H	Opt	Opt	6½x3x¼	C
11	.....303FB	2–2½	2425	199	...	13500	6100	B7.50/20	DB7.50/20	Her WXC	6-4x4½	Co	U 4	No	Cla B613	SF	H	Opt	Opt	6½x3x¼	C
12	.....551B	2½–3	2395	168	186	15500	6200	B7.50/20	DB7.50/20	Her WXC	6-4x4½	Co	U 4	No	Tim 58200H	SF	R	Opt	Opt	6½x3x¼	C
13	.....504A	3	2650	166	208	17500	6420	B8.25/20	DB8.25/20	Her WXC	6-4x4½	Co	U 4	No	Wis 69317 BL	2F	R	Opt	Opt	6½x3x¼	C
14	.....506A	3	2950	174	240	17500	6600	B8.25/20	DB8.25/20	Her WXC3	6-4¼x4½	Co	U 5	No	Wis 69317 BL	2F	H	Opt	Opt	6½x3x¼	P
15	603	3–4	3395	169	230	20000	7540	B9.00/20	DB9.00/20	Her YXC	6-4⅝x4¾	Co	U 5	Op	Wis 1237H	2F	R	Opt	Opt	6½x3x¼	P
16	.....606B	3–4	3695	177	244	19000	7600	B9.00/20	DB9.00/20	Her RXB	6-4½x5¼	Co	U 5	No	Wis 1237H	2F	H	Opt	Opt	6½x3x¼	P
17	750	4–5	4925	178	238	24000	9300	B9.75/22	DB9.75/22	Her RXC	6-4⅝x5¼	Co	A 5	Op	Wis 1627 KW	2F	R	Opt	Opt	7½x3½x⅛	P
18	Dodge Bros..UF-10	½	375	109	109	4025	1925	B5.00/19	B5.00/19	Own	4-3⅛x4¼	Own	U 3	No	Own	S½	H	4.66	13.9	5x1¾x⅛	C
19	.....F-10	½	445	109	109	4125	1975	B5.25/19	B5.25/19	Own	6-3¼x4¼	Own	U 3	No	Own	S½	H	4.66	13.9	5x1¾x⅛	C
20	.....	¾–1	490	124	124	4760	2260	B6.00/20	B6.00/20	Own	4-3⅜x4¾	Own	U 3	No	Own	S½	H	5.63	21.1	6x2¾x⅛	C
21	.....	¾–1	595	124	124	4860	2360	B6.00/20	B6.00/20	Own	6-3⅜x3⅞	Own	U 3	No	Own	S½	H	5.11	19.2	6x2¾x⅛	C
22	.....	1–1½	495	133	133	5840	2590	P6.00/20	P32x6	Own	4-3⅜x4¾	Own	U 4	No	Own	S½	H	5.6	36.1	6x2¾x⅛	C
23	.....	1–1½	595	133	133	5940	2690	P6.00/20	P32x6	Own	6-3⅜x3⅞	Own	U 4	No	Own	S½	H	5.1	33.4	6x2¾x⅛	C
24	.....UG-30	1–2	525	131	157	8200	2450	B6.00/20	P32x6	Own	4-3⅜x4¾	Own	U 4	No	Own	SF	H	5.85	36.1	7x2⅛x⅛	C
25	.....UF-30	1¼–2	595	136	165	8225	2581	B6.00/20	P32x6	Own	4-3⅜x4¾	Own	U 4	No	Own	SF	H	5.67	37.1	7x2⅛x⅛	C
26	.....F-30	1¼–2	695	136	165	8275	2631	B6.00/20	P32x6	Own	6-3¼x4¼	Own	U 4	No	Own	SF	H	5.67	37.1	7x2⅛x⅛	C
27	.....F-35	1½–2½	1425	140	165	10175	3780	B6.00/20	DB6.00/20	Own	6-3⅜x3⅞	Own	U 4	No	Own	SF	H	6.38	41.4	7¼x2⅞x¼	C
28	.....F-40	2–3½	1995	150	190	14590	5173	B6.50/20	DB6.50/20	Own	6-3⅝x5	Own	U 4	No	Own	SF	H	6.38	43.7	7¼x3¼x⅛	C
29	.....	3–4	1515	150	185	22250	4235	P32x6	DP32x6	Own	6-3¾x4½	Own	U 4	No	Own	S½	H	7.13	46.3	7½x3¼x⅛	C
30	.....(5) F-61	3–5½	2575	150	195	19429	5789	P32x6	DP32x6	Own	6-3⅝x5	Own	U 4	No	Own	SF	H	7.12	48.8	10x3¼x⅛	C
31	.....(5) G-81	4–7½	5285	170	220	25000	7300	B9.75/20	DB9.75/20	Own	8-3½x5	Own	U 5	No	Own	SF	H	7.71	69.6	10⅛x⅛x¼	C
32	Douglas.....A6	1	1095	135	145	7500	3075	P30x5	P30x5	Bud J214	6-3⅜x4	WG T9	U 4	No	Cla B370	SF	H	5.6	36.3	5¼x3⅜x⅛	T
33	.....B4	1½	2050	150	Op	9000	3950	P30x5	P32x6	Bud WTU	4-3¾x5½	Fu MKU12	U 4	No	Wis 4627	2F	R	6.57	26.3	5x1¾x¼	T
34	.....B6	1½	2150	150	Op	10500	4100	P30x5	P32x6	Bud HS6	6-3⅜x4½	Fu MKU12	U 4	No	Wis 4627	2F	R	6.57	26.3	6x2x¼	T
35	.....C4	2	3275	156	Op	12500	5100	P32x6	P34x7	Bud KBU-I	4-4x5¼	Fu MGU14	U 4	No	Wis 6617	2F	R	6.9	44.8	6x2x¼	T
36	.....C6	2	3425	168	Op	15500	5850	P32x6	P34x7	Bud DW6	6-3¾x5	Fu MGU14	U 4	No	Wis 6617	2F	R	6.33	41.1	6x2x¼	T
37	.....CD4	2½	3855	190	Op	17500	5860	P34x7	P36x8	Bud EBU-I	4-4¼x5½	Fu MGU14	U 4	No	Wis 8817	2F	R	7.85	51.0	7x2½x¼	T
38	.....CD6	2½	3955	190	Op	17500	5800	P34x7	P36x8	Bud DW6	6-3¾x5	Fu MGU14	U 4	No	Wis 8817	2F	R	7.85	51.0	7x2½x¼	T
39	.....D4	3	4010	186	Op	20000	6500	S36x5°	S36x10°	Bud YBU-I	4-4¼x6	Fu RU16	U 4	...	Wis 892A	2F	R	7.25	34.8	8x2¼x¼	T
40	.....D6	3	4430	186	Op	20000	6800	P36x6	DP38x7	Bud BUS	6-4x5½	Fu RU16	U 4	...	Wis 892A	2F	R	7.25	34.8	8x2¼x¼	T
41	.....D6 5p.	3	5500	216	Op	22000	7560	P38x7	DP40x8	Bud K428	6-4½x5⅜	Fu HOG	U 4	A 2	Wis 1418	2F	R	8.18	76.7	10x2¾x⅛	T
42	.....F4	5	5500	185	Op	26000	9200	S36x6	S40x12	Bud BBU	4-5x6½	Fu HU18	U 4	Op	Wis 1458	2F	R	9.12	57.	10x2½x⅛	T
43	.....F6	5	6300	196	Op	26000	9200	B9.75/38	DB9.75/38	Bud GL6	6-4½x6	Fu HU18	U 4	Op	Wis 1567	2F	R	10.3	64.4	10x2½x⅛	T
44	Duplex.....GF	2	2800	143	...	10500	4700	P32x6	P34x7	Bud WTU	4-3¾x5½	BL	U 3	No	Tim 64600	W½	H	6.50	34.8	5x3x¼	C
45	.....GS	2	2950	143	...	10500	4800	P32x6	P34x7	Bud HS6	6-3⅜x4½	BL	U 3	No	Tim 64600	W½	H	6.50	34.8	5x3x¼	C
46	.....S	3	3600	160	...	15000	5600	P32x6	P36x8	Bud DW6	6-3¾x5	BL	U 4	No	Tim 65001	WF	H	6.75	36.2	6x3½x¼	C
47	.....FAC	3½	4250	166	...	16500	7200	S34x5	S36x8	Bud EBU-I	4-4¼x5½	BL 51	U 5	No	Tim 65706	WF	R	8.5	45.5	7x3½x¼	C
48	.....EF	3½	4250	130	...	17000	6500	S36x8	S36x8	Bud EBU-I	4-4¼x5½	BL	U 4	A 2	Own	I	R	8.00	86.0	6x3⅛x¼	I
49	.....SAC	4	4750	166	...	18000	7400	S34x5	S36x8	Bud K428	6-4½x4¾	BL 55	A 7	No	Tim 65706	WF	R	8.5	81.0	7x3½x¼	C
50	.....K	5	5200	172	...	21000	8000	B10.50/20	DB10.50/20	Bud L525	6-4½x5½	BL	A 7	No	Own 76725	Op	R	Opt		8x3½x¼	C
51	.....M	5–7	7600	Op	...	28000	10000	P34x7	DS36x7	Bud GL6	6-4½x6	BL 70	7	No	Tim 68700	WF	R	Opt	Opt	9½x3½x⅛	C
52	Fageol.....101	1½–2½	900	143	167	8000	3700	B7.00/20	B7.00/20	Wau XAK	4-3¾x4¾	WG T9	U 4	No	Tim 53600H	BF	H	5.14	32.9	5x3x⅛	C
53	106	1½–2½	1400	161	173	8500	3975	B7.00/20	B7.00/20	Wau TS	6-3⅛x4¾	WG T9	U 4	No	Tim 52200H	B½	H	5.83	37.3	5x3x⅛	C
54	135	2–3	1900	161	177	10500	5150	P30x5	DP30x5	Wau TL	6-3⅛x4¾	WG T9	U 4	No	Tim 54004H	BF	H	5.83	37.3	5½x3x¼	C
55	250	2½–4	2750	178	196	14000	5750	P34x7	DP34x7	Wau MK	6-4½x4¾	BL 314	U 4	No	Tim 56200H	BF	H	6.16	37.3	6⅛x3x¼	C
56	300	3–5	3250	178	196	16000	6250	B9.00/20	DB9.00/20	Wau MK	6-4½x4¾	BL 314	U 4	...	Tim 58200H	BF	H	6.83	41.5	6⅛x3x¼	C
57	370	5–7	4350	182	200	22000	8080	B9.00/20	DB9.00/20	Wau SRL	6-4⅜x5½	BL 554&60	U 4	A 3	Tim 65706	WF	R	5.19	127.	7½x3½x⅛	C
58	Federal.....D3	1½	670	130	166	8500	3225	B6.00/20	P32x6	Con W10	4-3⅛x4¼	WG T9	U 4	No	Cla B374	SF	H	6.38	40.8	6x2¾x¼	C
59	.....E3	1½	695	130	166	8500	3225	B6.00/20	P32x6	Con 25A	6-3⅛x4	WG T9	U 4	No	Cla B374	SF	H	6.38	40.8	6x2¾x¼	C
60	.....F7	1¾	1325	132	168	10000	3765	P30x5	DP30x5	Con 16C	6-3⅛x4⅝	Own	U 4	No	Tim 52005H	SF	H	5.83	29.2	6x2¾x¼	C
61	.....T8	1¾–2	1425	136	168	11500	3863	P30x5	DP30x5	Con 16C	6-3⅛x4⅝	Own	U 4	No	Tim 54200H	SF	H	6.8	38.4	6x2¾x¼	C
62	.....A6	2	1695	151	200	13500	4580	P32x6	DP32x6	Con 16C	6-3⅛x4⅝	Own	A 4	No	Cla B610	SF	H	6.38	38.5	6x3⅛x¼	C
63	.....A6T	2½	1995	151	200	15000	5110	P32x6	DP32x6	Con 16C	6-3⅛x4⅝	Own	A 4	No	Tim 58000H	SF	H	7.80	47.1	6x3⅛x¼	C
64	.....A6TW	2½	2130	151	200	15000	5110	P32x6	DP32x6	Con 16C	6-3⅛x4⅝	Own	A 4	No	Tim 65001H	WF	H	8.75	52.9	6x3⅛x¼	C
65	.....T3W	2½	1595	148	185	14000	5110	P32x6	P36x8	Wau V	4-4x5	Own	A 4	No	Tim 64603H	W½	R	7.25	36.3	6x3½x¼	C
66	.....T8WF	2½	1795	148	185	15000	5400	P32x6	DP32x6	Con 16C	6-3⅛x4⅝	Own	A 4	No	Tim 65600HP	WF	R	7.75	38.8	6x3½x¼	C
67	.....T10B	2½–3	2550	165	201	18000	6550	P34x7	DP34x7	Con 16R	6-4x4⅛	Own	A 4	No	Tim 58200H	BF	R	6.83	44.5	7½x3½x⅜	C
68	.....T10W	2½–3	2685	165	201	18000	6550	P34x7	DP34x7	Con 16R	6-4x4½	Own	A 4	No	Tim 65200H	w/2	R	6.75	44.0	7½x3½x⅜	C
69	.....U6	3½–4	3860	165	218	21000	7420	P36x8	DP36x8	Con 20R	6-4½x4¾	BL 607	A 7	No	Tim 65706HP	w/2	R	6.8	64.6	7½x3½x⅜	C
70	.....C7	5–6	4485	195	249	24000	9550	B9.75/20	DB9.75/20	Con 21R	6-4½x4¾	BL 607	A 7	No	Tim 76725H	w/2	R	7.92	75.2	7½x3½x⅜	P
71	.....C8	5–6	4895	195	249	24000	9650	B9.75/20	DB9.75/20	Con 21R	6-4½x4¾	BL 607	A 7	No	Tim 76725W	w/2	R	7.92	75.2	7½x3½x⅜	P
72	.....X8	7½	4335	162	186	30000	9750	S36x6	S40x14	Con B7	4-5x5	BL 60	A 7	No	Tim 68700DP	w/2	R	11.7	111	9½x3½x⅜	C
73	.....X8R	7½	4735	162	186	30000	10475	P40x8	DP40x8	Con 21R	6-4¾x4¾	BL 60	A 7	No	Tim 68702DP	w/2	R	11.7	111	9½x3½x⅜	C
74	Fisher-Std..JR-BX	¾–1	875	120	128	6800	2800	P30x5	P30x5	Con W10	4-3⅞x4½	WG T9	U 4	No	Sal F	S½	H	5.37	34.4	6⅛x2¼x⅛	C
75	.....Sp.X	1½	950	128	136	7800	3150	P30x5	DP30x5	Con W20	4-4¼x4¼	Co F4B	U 4	No	Tim 52200H	SF	H	5.83	37.3	6x2¾x¼	C
76	.....10-AX	1½–2	1090	136	165	8800	3220	P30x5	P32x6	Con 17E	6-3⅝x4	BL 214	U 4	No	Tim 53200H	SF	H	5.14	32.9	6x2¾x¼	C
77	.....15A	1½–2	1390	144	...	8000	3250	P30x5	P32x6	Con 17E	6-3⅝x4	BL 214	U 4	No	Tim 52200H	SF	H	5.83	37.4	6x2¾x¼	C
78	.....22A	2	1945	156	...	8800	3700	P32x6	DP32x6	Con 16C	6-3⅝x4⅛	BL 314	U 4	No	Tim 54200H	SF	R	5.83	38.5	6x2¾x¼	C
79	.....30A	3	2495	160	...	16800	5600	P34x7	DP34x7	Con 11R	6-3⅞x4¼	BL 314	U 4	No	Tim 56200H	SF	R	6.16	40.6	7½x3½x⅛	C
80	.....31A	3	2975	160	...	16800	5800	P34x7	DP34x7	Con 11R	6-3⅞x4½	BL 51	U 4	No	Wis 6787L	SF	R	6.41	42.3	7½x3½x⅛	C
81	.....61A	3½	3750	155	...	16800	5600	P34x7	DP34x7	Con 16R	6-4x4½	BL 51	U 4	No	Tim 58200H	SF	R	6.16	32.9	6½x2½x⅛	C
82	.....80A	4	4560	168	...	21600	6960	P36x8	DP36x8	Con 18R	6-4⅝x5⅛	BL 55	U 7	No	Tim65720TW	SF	R	7.75	67.7	7½x2½x⅛	C
83	.....100A	5	4600	168	...	21600	8300	P36x8	DP36x8	Con 21R	6-4⅜x4¾	BL 60	U 7	No	Tim 66720W	SF	R	8.2	77.9	8½x2½x⅛	C
84	.....105A	5	5300	168	...	25000	8400	P38x9	DP38x9	Con 21R	6-4⅜x4¾	BL 60	U 7	No	Tim68720TW	SF	R	8.75	83.1	8x2½x⅛	C
85	Ford.....A	1000Lb.	340	103	...	.....	1675	B4.75/19	B4.50/20	Own A	4-3⅞x4¼	Own	U 3	No	Own	S¾	U	3.7	11.7	.....	.....
86	.....AA	1½	495	131	157	.....	2738	B6.00/20	P32x6	Own	4-3½x4¼	Own	U 4	No	Own	S¾	U	6.6	42.2	6x2¾x⅛	C
87	F.W.D.....H4	1½–2	3325	120	160	9300	5300	P34x7	P34x7	Wis SU	4-4x5	Cot A	A 4	Op	Own	BF	H	7.86	38.0	5⅛x2¼x⅛	C
88	.....H6	2–2½	3425	133	160	11000	5500	P34x7	P34x7	Wau MS	6-3¾x4¾	BL 51	U 4	No	Own	BF	H	8.92	47.7	5⅛x2¼x⅛	C
89	.....BTL-6	2–2½	3900	137	160	11500	6000	P36x8	P36x8	Wau MS	6-3¾x4¾	BL 55	A 7	R 2	Own HT	BF	H	6.95	84.7	5⅛x2¼x⅛	C
90	.....HH-6	2½–3	4000	138	170	12900	6400	P36x8	P36x8	Wau MK	6-4½x4¾	BL 55	A 7	R 2	Own	BF	H	6.95	84.7	5⅛x2¼x⅛	C
91	.....B	3–3½	4200	124	156	13960	6460	S36x6	S36x6	Own A	4-4¾x5½	Cot DAF	A 3	Op	Own B	BF	H	8.9	35.6	5⅛x2¼x⅛	C
92	.....CU-6	3½–4	5120	148	180	17500	7500	P38x9	P38x9	Wau SRS	6-4½x5½	Own	A 5	Op	Own U	BF	H	8.9	88.9	7x3⅛	C
93	.....CU6A	3½–4	4600	148	180	.....	.....	.....	B10.50/20	Wau SRL	6-4½x5½	BL	U 5	...	Own	...	H	6.72	55.2	7½x3⅛	C
94	.....SSU	4–5	5220	148	Op	18600	7600	P38x9	P38x9	Wau SRL	6-4½x5½	Own	A 5	Op	Own	BF	H	8.9	88.6	7x3⅛	C
95	.....M5	5–7½	7600	165	195	24800	11800	B12.75/20	B12.75/20	Wau SRK	6-4½x5½	BL 714	U 4	A 2	Own	2F	H	10.0	207.	8x3x⅜	C
96	.....MF6	5–6	6200	148	Op	24000	9300	B10.50/20	DB10.50/20	Wau AB	6-4½x5¾	Own	U 4	...	Own	BF	H	.....	.....	8x3x⅜	C
97	.....LBU	5–7	4800	171	Op	22000	9000	B9.00/20	DB9.00/20	Wau SRS	6-4½x5½	BL	U 4	...	Own	D	H	7.35	39.5	7x3x⅜	C
98	.....M7	7½–10	8700	165	Op	31750	13000	P40x10	DP40x10	Wau RB	6-5x5¾	BL 714	U 4	A 2	Wis	2F	H	8.36	173.	10x3x⅜	C
99	Garford.....40Z	2½	2990	168	192	12500	4700	P36x6	DP36x6	Bud DW6	6-3¾x5	Fu	U 4	No	Own	SF	R	6.45	42.0	6x3x¼	C
100	.....S11Z	2	1900	162	192	10000	4300	P30x5	DP30x5	Bud HS6	6-3⅜x4½	BL	U 4	No	Own	WF	R	6.39	39.0	6x2½x⅛	C
101	.....60Z	3	4680	175	192	18000	7100	P36x6	DP38x7	Bud BA6	6-4½x5½	Fu VU	U 5	No	Tim65706DH	WF	R	8.5	63.0	7x3½x¼	P
102	.....80Z	4	5330	175	192	24000	8400	S36x6	S36x14	Bud BA6	6-4½x5½	BL 60-Max	A 7	No	Tim 66700DP	WF	R	10.3	98.2	8x3½x⅜	C
103	.....100Z	5	5830	175	192	30000	9600	S36x6	S40x14	Bud BA6	6-4½x5½	BL 60-Max	A 7	No	Tim 68700DP	WF	R	10.1	95.8	8x3½x⅜	P
104	General Mot.(6) T15	½–1½	645	130	141	6500	2625	B5.50/20	B5.50/20	Own 200	6-3⅛x3⅜	Own	U 3	No	Own	S½	H	4.86	16.1	6x2¼x⅛	L
105	.....T18	½–1	595	131	157	8200	2800	P30x5	P32x6	Own 200	6-3⅛x3⅜	Own	U 4	No	Own	S½	J	5.43	35.7	6x2¼x⅛	L
106	.....T19	1½–2½	745	130	164	10000	3115	B5.50/20	P32x6	Own 200	6-3⅛x3⅜	Own	U 4	Op	Own	SF	H	6.2	40.7	6x2¼x⅛	L
107	.....T25	1½–2	1200	130	152	9000	3375	B6.00/20	B7.50/20	Buick	6-3⅛x4⅝	Own	U 4	Op	Own	S½	H	5.83	29.6	6x2¼x⅛	L
108	.....T26	2–3	1360	130	164	11000	3685	B6.50/20	B8.25/20	Own 257	6-3⅛x4⅝	Own	U 4	Op	Own	SF	H	5.67	28.8	6½x2¼x¼	L
109	.....T30	2–3	1545	141	164	12500	4490	P30x5	DP30x5	Buick	6-3⅛x4⅝	Own	U 4	Op	Own	S½	H	5.63	28.6	6⅛x3x⅛	L
110	.....T31	2½–4	1845	141	181	14000	4695	P32x6	DP32x6	Own 257	6-3⅛x4⅝	Own	U 4	Op	Own	SF	H	5.63	35.5	6⅛x3x⅛	L
111	.....T42	2½–4	1845	141	181	15000	4725	P32x6	DP32x6	Buick	6-3⅛x4⅝	Own	U 4	Op	Own	S½	H	6.57	33.4	6⅛x3x⅛	L
112	.....T44	3–4½	2065	141	181	16000	5095	P34x7	DP34x7	Buick	6-3⅛x4⅝	Own	U 4	Op	Own	2½	R	8.05	40.9	6⅛x3x⅛	L
113	.....T45	3–4½	1990	141	181	16000	5050	P32x6	DP32x6	Own 257	6-3⅛x4⅝	Own	U 4	Op	Own	2F	R	8.05	50.7	6⅛x3x⅛	L
114	.....T51	4–5½	2565	155	200	19000	5955	P34x7	DP34x7	Own 331	6-3¾x5	Own	U 4	No	Own	SF	R	6.57	40.6	9x3½x⅛	L
115	.....T55	4–5½	2690	155	200	19000	6095	P34x7	DP34x7	Own 331	6-3¾x5	Own	U 4	No	Own	2F	R	8.05	49.8	9x3½x⅛	L
116	.....T60	5–6½	3035	154	200	22000	6925	P34x7	DP34x7	Buick	6-3¾x5	Own	U 4	Op	Own	WF	R	8.50	52.5	9x3½x⅛	L
117	.....T61	5–6½	3445	154	200	22000	6965	B9.00/20	DB9.00/20	Own 331	6-3¾x5	Own	U 4	Op	Own	WF	R	8.50	52.5	9x3½x⅛	L
118	.....T82	5–7	3795	155	201	24000	7500	B9.00/20	DB9.00/20	Own 331	6-3¾x5	Own	U 4	A 3	Own	WF	R	10.2	143	9x3½x⅛	L
119	.....T83	5–7	3990	155	201	24000	7670	B9.00/20	DB9.00/20	Own 331	6-3¾x5	Own	U 4	A 3	Own	WF	R	10.2	143	9x3½x⅛	L
120	.....T85	6–8	5600	171	204	30000	10630	B9.75/20	DB9.75/20	Own 468	6-4¼x5½	Own	U 4	Op	Own	2F	R	8.50	53.3	9⅛x4x⅛	L

Line Number	Engine Details: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	Main Bearings: Number and Diameter	Main Bearings: Length	Oiling System Type	Governor Make	Fuel Syst.: Carburetors Make	Fuel Feed	Electrical: Ignition System Make	Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	Front Axle: Make and Model	Steering Gear Make	Brakes: Service: Make, Location and Type	Lining Area	Drum Material	Hand Type, Location	Body Mounting Data: Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Springs: Front	Rear	Auxiliary Type
1	214	4.9	142	27.3	61-3000	L	C	A	4-2⅜	6⅜	FP	No	Zen	M	DR	DR	P.BB	GO	Spi	Tim 30000H	Ros	L4IH	380	a	4I	106½	58½	34	40x2¼	54x2½	½
2	248	5.0	160	27.3	65-2700	L	C	C	7-2⅜	10 3/32	FP	No	Zen	M	DR	DR	P.BB	Pe	Spi	Tim 30000H	Ros	L4IH	380	a	TX	105	57	34	40x2¼	54x2½	½
3	248	5.0	160	27.3	65-2700	L	C	C	7-2⅜	10 3/32	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 31000H	Ros	L4IH	452	a	TX	135	78½	33½	40x2¼	54x3	½
4	311	4.1	196	38.4	73-2400	H	C	N	7-2¾	13 3/16	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	578	a	TX	124½	69	33½	40x2¼	56x3	½
5	339	4.2	212	38.4	82-2400	H	C	N	7-2¾	13 3/16	FP	Co	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 33000H	Ros	L4IH	659	a	TD	132	80½	34	42x2½	56x3	½
6	500	4.2	212	38.4	82-2400	H	C	N	7-2¾	13 3/16	FP	Co	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	768	a	TD	132	80½	34	42x2½	56x3	½
7	427	4.2	267	45.9	100-2600	H	C	N	7-2¾	13 3/16	FP	Co	Zen	V	DR	DR	D.BL	Pe	Blo	Tim 36020H	Ros	L4IHV	520	a	TD	132	78	37	48x3	60x3½	½
8	228	4.4	143	27.3	60-2400	L	G	C	7-2½	10 11/16	PC	No	Zen	M	AL	AL	P.BB	GO	Spi	Cla F208	Ros	L4IH	252	a	TX	93	51½	34	42x2	50x2½	½
9	263	4.4	164	31.5	68-2400	L	G	A	7-2½	10 11/16	PC	No	Zen	M	AL	AL	P.BB	GO	Spi	Cla F308	Ros	L4IH	350	pa	TX	126	72	34	42x2½	53x2½	½
10	298	4.4	190	33.7	69-2400	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	AL	AL	P.BB	GO	Spi	Cla F308	Ros	L4IHV	350	pa	TD	117	73⅜	34	45¼x2½	53x2½	½
11	339	4.4	212	38.4	76-2400	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	LN	LN	P.BB	GO	Spi	Cla F308	Ros	L4IHV	350	pa	TD	.....	.....	34	45¼x2½	56x3	½
12	339	4.4	212	38.4	76-2400	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	AL	AL	D.Co	GO	Spi	Shu 5582B	Ros	L4IHV	408	pa	TD	135	81⅝	34	45¼x2½	56x3	½
13	339	4.4	212	38.4	76-2400	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	AL	AL	D.Co	GO	Spi	Shu 5582B	Ros	L4IHV	408	pa	TD	126	80⅛	34	45¼x2½	56x3	½
14	384	4.4	262	43.3	90-2200	L	G	C	7-2⅝	13¼	PC	Ha	Zen	M	LN	LN	D.Co	GO	Spi	Shu 5582B	Ros	L4IHV	408	pa	TD	138	87⅝	34	45¼x2½	56x3	½
15	428	4.4	280	45.9	93-2200	L	G	C	7-3	14	PC	Ha	Zen	M	AL	AL	D.Co	GO	Spi	Shu 5582B	Ros	L4IHV	499	a	TD	120	79½	34	45¼x2½	56x3	½
16	500	4.4	330	48.6	111-2200	L	G	C	7-3	12½	PC	Ha	Zen	M	LN	LN	D.Co	GO	Spi	Shu 5582B	Ros	L4IHV	499	a	TD	138	88	34	45¼x2½	56x3	½
17	529	4.4	350	51.3	114-2200	L	G	C	7-3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	Spi	Shu 678	Ros	Ws 4I	552	a	TD	138	89¼	34	46x3	56x3½	½
18	196	4.6	124	21.0	48-2800	L	G	A	3-2¼	6⅛	FP	No	Car	M	DR	DR	P.	Fe	.....	Own	Wa	O4IH	121	a	TX	53⅞	26⅝	42 11/16	35½x1¾	53½x1 11/16	N
19	211	5.3	134	25.3	66-3200	L	C	S	4-2¼	6¼	FP	No	Car	M	DR	DR	P.	Fe	.....	Own	Wa	O4IH	121	a	TX	53⅞	26⅝	42 11/16	35½x1¾	53½x1 11/16	N
20	196	4.6	124	21.0	48-2800	L	C	S	3-2¼	6⅛	PC	No	Car	V	DR	DR	P.	Fe	.....	Own	Ha	O4IH	189	a	TX	66⅞	31	37⅞	39x2	48x2½	N
21	208	5.1	132	27.3	63-3200	L	C	S	7-2⅜	10 11/64	PC	No	Zen	V	NE	NE	P.	Fe	.....	Own	Ha	O4IH	189	a	TX	66⅞	31	37⅞	39x2	48x2½	N
22	195	4.6	124	21.0	48-2800	L	C	S	3-2¼	6⅛	PC	Ha	Car	V	DR	DR	P.	Fe	.....	Own	Ha	O4IH	206	a	TX	85⅞	50	37⅞	39x2	48x2½	N
23	208	5.1	132	27.3	63-3200	L	C	S	7-2⅜	10 11/64	PC	Ha	Zen	V	NE	NE	P.	Fe	.....	Own	Ha	O4IH	206	a	TX	85⅞	50	37⅞	39x2	48x2½	N
24	195	4.6	124	21.0	48-2800	L	C	A	3-2¼	6⅛	FP	No	Car	M	DR	DR	P.	Fe	Own	Own	Own	O4IH	175	a	TX	91½	50½	34	36x1¾	48x2¼	N
25	196	4.6	124	21.0	48-2800	L	C	A	3-2¼	6⅛	FP	No	Car	M	DR	DR	P.	Fe	Own	Own	Wa	O4IH	187	a	TX	88⅜	52⅜	37⅞	39x2	48x2½	N
26	211	5.2	134	25.3	66-3200	L	C	S	4-2¼	6¼	FP	No	Car	M	DR	DR	P.	Fe	Own	Own	Wa	O4IH	187	a	TX	88⅜	52⅜	37⅞	39x2	48x2½	N
27	208	5.1	132	27.3	63-3200	L	C	S	7-2⅜	10 11/64	FP	Ha	Zen	M	DR	DR	P.	Lo	Own	Own	Ha	O4IH	305	c	TX	119 1/16	62¾	34	40x2½	56x3	N
28	309	4.7	200	31.5	96-3000	L	G	S	7-2⅝	11¾	FP	Ha	Ste	M	DR	DR	P.	Lo	Own	Own	Jac	O4IH	350	a	CD	124 11/16	69¾	33 11/16	42x3	56⅛x3½	½
29	241	5.3	167	27.3	78-3000	L	C	S	7-2 3/16 r	11	PC	KP	Zen	V	NE	NE	P.	Fe	Own	Own	Ha	O4IH	382	a	TX	82¼	54¾	34	39x2½	45x3	N
30	309	4.7	200	31.5	96-3000	L	G	S	7-2⅝	11¾	FP	Ha	Ste	M	DR	DR	P.	Lo	Own	Own	Jac	O4IH	416	a	CD	149 11/16	89¼	34	42x3	56x3½	½
31	384	5.0	262	39.2	120-3000	L	G	S	9-2¾	13	FP	Ha	Str	M	DR	DR	P.	Lo	Own	Own	Jac	BWs4IH	650	a	CD	149 11/16	89¾	34 1/16	42x3	56x3½	½
32	214	5.0	...	27.3	61-3000	L	G	C	7-2½	10½	FP	No	Zen	M	AL	AL	P.BB	Mo	M.M.	Cla F208	Ros	L4IH	377	...	FX	96	58¾	34	39¼x2	49x2½	½
33	226	4.0	136	22.5	36-1800	L	G	C	3-2⅛	7 11/16	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 510	Ros	W2IM	538	...	2I	110	72	31	46x2½	52x2½	½
34	241	4.5	143	27.3	57-2500	L	G	C	4-2⅜	8	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 510	Ros	W2IM	538	...	2I	110	72	31	46x2½	52x2½	½
35	263	4.2	...	25.6	43-2000	L	G	C	3-2⅛	9 3/16	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 510	Ros	W2IM	538	...	CX	144	88	31	46x2½	52x2½	½
36	331	4.5	200	33.7	73-2400	L	G	C	4-2½	9	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 510	Ros	W2IM	538	...	CX	144	88	31	46x2½	52x2½	½
37	312	4.0	174	28.9	49-1900	L	G	C	3-2⅜	10 3/32	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 5550	Ros	W2IM	538	...	CX	192	104	31	46x2½	54x3	½
38	331	4.5	200	33.7	73-2400	L	G	C	4-2½	9	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 5550	Ros	W2IMV	538	...	CX	192	104	31	46x2½	54x3	½
39	381	4.1	...	32.4	50-1400	L	G	C	3-2⅜	9 21/32	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 5550	Ros	W2IMV	503	...	CX	168	98	31	45x3	54x3	½
40	386	4.3	...	38.4	78-2300	L	G	C	4-2½	9⅛	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 5550	Ros	W2IMV	503	...	CX	168	98	31	45x3	54x3	½
41	411	4.7	280	40.8	83-2100	L	G	C	4-2½	9⅞	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 615	Ros	W2IMV	503	...	CX	223	121	31	45x3	54x4	½
42	510	3.9	...	40.0	61-1400	L	G	C	3-2⅝	12 11/16	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 615	Ros	W2IMV	503	...	CX	216	130	36	45x3	54x4	½
43	572	4.3	358	48.6	114-1900	L	G	C	4-3	10 3/16	PC	Bu	Zen	E	LN	LN	D.Fu	Ow	Blo	Shu 650	Ros	W2IM	538	...	CX	156	108	36	48x3	54x4	½
44	226	4.5	136	22.5	37-1800	L	G	C	3-3	8	PS	No	Zen	V	AL	AL	D.BL	Mo	Cle	Shu 5410	Ros	T2IM	...	...	2I	.....	.....	34	39x2½	50x2½	N
45	241	4.5	150	27.3	57-2500	L	G	C	4-2 11/16	8 11/16	FP	No	Zen	V	AL	AL	D.BL	Mo	Cle	Shu 5410	Ros	T2IM	...	...	2I	.....	.....	34	39x2½	50x2½	N
46	330	4.5	213	33.7	61-2100	L	G	C	4-2⅞ r	9	FP	No	Str	V	AL	AL	D.BL	Mo	Cle	Shu 5510	Ros	T2IM	...	...	2I	.....	.....	34	39x2½	50x2½	N
47	312	4.5	174	28.9	57-2100	L	G	C	3-3 11/16 r	10 3/32	PS	No	Zen	V	Ei	AL	D.BL	Mo	Cle	Shu 5550	Ros	T2IM	...	...	2	.....	.....	34	39x2½	52x3	N
48	312	4.5	174	28.9	57-2100	L	G	C	3-2⅜	10 3/32	PS	No	Zen	V	Ei	AL	D.BL	Lo	Pet	Own	Wo	OP4M	...	...	TX	.....	.....	39 3/16	44x3	44x3	N
49	428	4.5	280	45.9	102-2400	L	G	C	7-3r	9⅛	FP	No	Zen	M	AL	AL	D.BL	Mo	Cle	Shu 5550	Ros	T2IM	...	...	T	.....	.....	34	39x2½	52x3	N
50	...	4.5	348	...	....	L	G	C	......	....	PS	Mo	Str	P	AL	AL	D.BL	Yo	Pet	Shu 637	Ros	......	...	...	...	.....	.....	34	39½x3	52x3½	N
51	572	4.5	358	48.6	105-2200	L	G	C	4-3	10 1/16	FP	....	Str	V	AL	AL	D.BL	Mo	Cle	Shu	Ros	T2IA	...	...	...	.....	.....	38⅛	42x3	56x4	N
52	210	4.3	130	22.5	40-2150	L	G	A	3-2¼	6 3/16	FP	No	Zen	M	DR	DR	P.Lo	Pe	Spi	Tim 30010H	Ros	L4IH	257	H	TX	120	65¾	34	32¾x2	50x2½	N
53	219	5.2	137	23.4	58-2500	L	G	A	4-2⅜	7⅝	PC	No	Zen	M	DR	DR	P.Lo	Pe	Spi	Tim 11706H	Ros	L4IH	282	G	TX	132	84	34	32¾x2½	50x2½	N
54	255	5.1	170	27.3	68-2500	L	G	A	4-2⅜ r	7⅝	FP	No	Zen	M	DR	DR	P.Lo	Pe	Spi	Tim 12703H	Ros	L4IH	...	G	TX	144	83⅛	....	37x2½	56x3	N
55	381	4.4	240	40.8	82-2200	L	G	A	7-2⅝	12½	FP	No	Zen	V	DR	DR	P.BL	Pe	Spi	Tim 33020H	Ros	L4IH	355	G	TX	167⅛	97⅛	34	41x2½	56x3	N
56	381	4.4	240	40.8	82-2200	L	G	A	7-2⅝	12½	FP	No	Zen	V	DR	DR	P.BL	Pe	Spi	Tim 33020H	Ros	L4IHV	398	G	TX	167⅛	97⅛	34	41x2½	56x3	N
57	462	4.5	300	46.0	98-2000	L	G	A	7-3	13⅞	PC	No	Zen	V	DR	DR	P.BL	Pe	Spi	Tim 15302	Ros	T2IMV	510	H	TX	172 3/16	101⅝	33½	41x3	56x3½	N
58	200	4.7	126	24.0	50-2700	L	C	A	3-2⅛	5⅞	PC	No	Zen	M	DR	DR	P.BB	Lo	Cle	Cla F212	Ge	L4IH	377	P	TX	103	51⅛	34	38½x2¼	50x2½	N
59	215	4.9	142	27.3	72-3400	L	C	A	4-2⅜	6⅜	PC	No	Zen	M	DR	DR	P.BB	Lo	Cle	Cla F212	Ge	L4IH	377	P	TX	103	51⅛	34	38½x2¼	50x2½	N
60	248	5.0	150	27.3	64-2600	L	C	A	7-2⅜	10 3/32	PC	KP	Zen	M	DR	DR	P.BB	Lo	Pet	Tim 11704H	Ge	L4IH	413	P	TI	95	51	34	38x2¼	50x2½	N
61	248	5.0	150	27.3	64-2600	L	C	A	7-2⅜	10 3/32	PC	KP	Zen	M	DR	DR	P.BB	Lo	Pet	Tim 31020H	Ge	L4IH	438	P	TI	95	51	34	38x2¼	50x2½	½
62	248	5.0	150	27.3	64-2600	L	C	A	7-2⅜	10 3/32	PC	KP	Zen	V	DR	DR	P.BB	Lo	PS	Cla F304	Ros	L4IH	450	a	TI	119	71	34	40x2¼	52x3	½
63	248	5.0	150	27.3	64-2600	L	C	A	7-2⅜	10 3/32	PC	KP	Zen	V	DR	DR	P.BB	Lo	PS	Cla F304	Ros	L4IHV	659	a	TI	119	71	34	40x2¼	51¾x3	½
64	248	5.0	150	27.3	64-2600	L	C	A	7-2⅜	10 3/32	PC	KP	Zen	V	DR	DR	P.BB	Lo	PS	Cla F304	Ros	L4IHV	659	a	TI	119	71	34	40x2¼	51¾x3	½
65	251	4.1	162	25.6	50-2000	L	G	C	3-2⅜	7½	PC	Wa	Zen	V	DR	DR	P.BB	Lo	PS	Own	Ros	L4IH	575	a	TI	119	71	34	38x2½	52x3	½
66	248	5.0	150	27.3	64-2600	L	C	A	7-2⅜	10 3/32	PC	KP	Zen	V	DR	DR	P.BB	Lo	PS	Own	Ros	L4IHV	659	a	RI	119	71	34	38x2½	52x3	½
67	311	4.2	197	38.4	75-2200	H	C	C	7-2¾	13 3/16	PC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own	Ros	L4IHV	659	a	TI	117	79	34	42x2½	54x3	½
68	311	4.2	197	38.4	75-2200	H	C	C	7-2¾	13 3/16	PC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own	Ros	L4IHV	659	a	TI	117	79	34	42x2½	54x3	½
69	381	4.2	237	40.8	85-2200	H	C	C	7-2¾	13 3/16	PC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own	Ros	L4IHV	767	a	TI	117	79	34	42x2½	54x3	½
70	428	4.2	268	45.9	100-2200	H	C	C	7-2¾	13 3/16	PC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Tim 36020	Ha	L4IHV	866	a	TI	162	102	34	42x3	56x3½	½
71	428	4.2	268	45.9	100-2200	H	C	C	7-2¾	13 3/16	PC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Tim 36020	Ha	W4IA	921	a	TI	162	102	34	42x3	56x3½	½
72	471	3.7	288	40.0	61-1350	L	G	C	3-2⅝	11⅛	FP	Pe	Zen	V	AB	DR	P.BB	Lo	PS	Own	Ge	T2IMV	603	a	RI	151	87	38	44x3	56x3½	½
73	428	4.2	268	45.9	100-2200	H	C	C	7-2¾	13 3/16	PC	KP	Zen	M	DR	DR	P.BB	Lo	PS	Own	Ge	T2IMV	462	a	RI	151	87	38	44x3	56x3½	½
74	200	4.7	126	24.0	49-2800	L	C	A	3-2⅛	5⅝	FP	No	Zen	M	AL	AL	P.Lo	Lo	Spi	Sal F	Ros	L4IH	362	a	TX	84	47½	32	40x2	54x2½	N
75	227	4.6	152	26.8	52-2400	L	C	A	3-2⅛	5⅞	FP	No	Zen	M	AL	AL	P.Lo	Lo	Spi	Tim 11703H	Ros	L4IH	...	a	TX	88	54½	32	40x2	54x2½	N
76	214	5.0	138	27.3	61-3000	L	C	A	7-2⅛	9 11/16	FP	No	Zen	M	AL	AL	BL	Lo	Spi	Tim 30000H	Ros	L4IH	...	a	TX	108	60½	32	40x2	54x2½	N
77	214	5.0	138	27.3	61-3000	L	C	A	7-2⅛	9 11/16	FP	No	Zen	M	AL	AL	BL	Lo	Spi	Tim 11703H	Ros	L4IH	380	a	TX	106	68½	32	40x2	54x2½	N
78	248	5.0	150	27.3	66-3200	L	C	A	7-2⅜	10 3/32	FP	No	Zen	M	AL	AL	BL	Lo	Spi	Tim 31000H	Ros	L4IH	380	a	TX	130	80½	32	40x2	54x3	N
79	291	4.1	178	35.0	64-2500	H	C	C	7-2½	12 3/16	FP	Ha	Zen	M	DR	DR	BL	Lo	Spi	Tim 33000H	Ros	L4IH	577	a	TX	120	74	34	43x2½	54x3	½
80	291	4.1	178	35.0	64-2500	H	C	C	7-2½	12 3/16	FP	Ha	Zen	M	DR	DR	BL	Lo	Spi	Tim 33000H	Ros	L4IH	660	a	CD	120	74	34	43x2½	54x3	½
81	311	4.1	196	38.4	73-2400	H	C	C	7-2¾	13 11/16	FP	Ha	Zen	M	DR	DR	BL	Lo	Spi	Tim 33000H	Ros	L4IH	660	a	CD	144	79	32	43x2½	54x3	½
82	339	4.1	212	38.4	80-2400	H	C	C	7-2¾	13 3/16	FP	Ha	Zen	M	DR	DR	BL	Lo	Spi	Tim 35100Tw	Ros	W4IA	768	a	CD	126	69	32	43x2½	54x3	½
83	428	4.1	268	45.9	100-2600	H	C	C	7-2¾	13 3/16	FP	Ha	Zen	M	DR	DR	BL	Lo	Spi	Tim 35100Tw	Ros	W4IA	768	a	CD	144	94	38	46x3	54x4	½
84	428	4.1	268	45.9	100-2600	H	C	C	7-2¾	13 3/16	FP	Ha	Zen	M	DR	DR	BL	Lo	Spi	Tim 27450Tw	Ros	W4IA	820	a	CD	144	94	38	46x3	54x4	½
85	200	4.2	123	24.0	40-2200	L	G	A	3-1⅝	7	PG	No	Zen	G	Ow	Ow	D.Ow	Ow	Own	Own	Own	O4IM	168	p	2I	.....	.....	.....	30 11/16 x	39½x	N
86	200	4.2	123	24.0	40-2200	L	G	A	3-1⅝	7	PG	No	Zen	G	Ow	Ow	P.Lo	Ow	Own	Own	Own	O4IM	358	p	2I	81½	51¾	38 1/16	30⅝x2¼	36x2¼	N
87	251	4.5	160	25.6	50-2000	H	G	C	3-2 1/16 r	8	PC	No	Zen	V	AL	AL	D.DG	Pe	Blo	Own	Ros	O4M	238	G	2I	112	81	36	42¾x2½	52¾x2½	½
88	315	4.5	200	33.7	72-2500	L	G	C	7-2⅝	12⅜	PC	Wa	Zen	V	Ei	NE	D.BL	Pe	Blo	Own	Ros	O4XM	252	G	2I	115½	81½	36	42¾x2½	52¾x2½	½
89	315	4.5	200	33.7	72-2500	L	G	C	7-2⅝	12⅜	PC	Wa	Zen	M	RB	NE	D.BL	Pe	Blo	Own H	Ros	O4XM	238	G	2I	120½	86½	36	42¾x2½	52¾x2½	½
90	381	4.5	240	40.8	85-2400	L	G	C	7-2⅝	12⅜	PC	Wa	Zen	M	RB	NE	D.BL	Pe	Blo	Own	Ros	O4XM	238	G	2I	126	86	36	42¾x2½	52¾x2½	½
91	398	4.0	210	36.1	56-1350	T	G	C	3-2	12	PC	Pe	Str	G	RB	NE	O.ME	Mc	Blo	Own B	Ros	O4IM	238	G	2I	130	93	36	42¾x2½	52¾x2½	N
92	411	4.6	265	40.8	91-2300	L	G	C	7-3	13⅞	PC	Wa	Zen	M	RB	NE	O.HS	Pe	Blo	Own U	Ros	O4XM	238	G	2I	132	93	36	42¾x2½	52¾x2½	N
93	462	4.5	300	45.9	102-2200	L	G	C	7-3	13⅞	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Own	Ha	OWI	238	G	4X	132	93	36	42¾x2½	52¾x2½	½
94	462	4.5	300	45.9	102-2400	L	G	C	7-3	13⅞	PC	Wa	Zen	V	RB	NE	O.HS	Pe	Blo	Own	Ros	O4XM	238	G	2I	132	93	36	42¾x2½	52¾x2½	½
95	517	4.6	330	51.3	110-2300	L	G	C	7-3	13⅞	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Wis	Ros	B4IMV	324	G	T4	153½	110½	34	48x3½	52x4	½
96	549	4.6	328	48.6	98-2000	L	G	C	4-3½	11⅛	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Own	Ros	O4TB	722	G	4X	.....	.....	36	42¾x2½	54¾x2½	N
97	411	4.6	265	40.8	91-2300	L	G	C	7-3	13⅞	PC	Wa	Zen	M	RB	NE	D.BL	Pe	Blo	Own	Ros	O4IM	722	G	4D	.....	.....	.....	42¾x2½	52x4	N
98	677	4.4	460	60.	125-2000	L	G	C	4-3½	11⅜	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Wis	Ros	B4IMV	324	G	T4	153½	110½	34	48x3½	52x4	N
99	331	4.5	202	33.7	64-2100	L	G	C	4-2½	7⅞	PC	No	Zen	V	AL	AL	D.Fu	Lo	Blo	Tim 35000H	Ha	O4IH	...	a	FX	144	90	34	40x2¼	54x3	½
100	241	4.5	143	27.3	53-2200	L	G	C	4-2⅜	8	PC	No	Zen	V	AL	AL	D.BL	Lo	Blo	Col 5540	Ha	O4IH	...	a	FX	103½	63	34	36x2¼	50x2½	½
101	410	4.5	270	40.8	83-2100	L	G	C	4-2½	9⅞	PC	Bu	Zen	V	AL	AL	Fu	Lo	Blo	Tim 35000H	Ha	L4IH	584	a	FX	156	97½	34	42x2½	54x3	½
102	411	4.5	270	40.8	83-2100	L	G	C	4-2½	9⅞	PC	Bu	Zen	V	AL	AL	D.Ow	Lo	Blo	Tim 26450H	Ha	L4IH	...	a	FX	144	94½	34	42x3	56x3	½
103	411	4.5	270	40.8	83-2100	L	G	C	4-2½	9⅞	PC	Bu	Zen	V	AL	AL	D.Ow	Lo	Blo	Tim 27450H	Ha	L4IH	...	a	FX	144	94½	34	42x3	56x4	½
104	200	4.9	127	26.3	60-3000	L	C	B	3-2 1/16 r	5⅝	CC	No	Ma	M	DR	DR	P.Ow	Lo	.....	Own	Jac	B4IM	211	a	4I	87	48	34	38x2	50¼x2½	N
105	200	5.1	132	26.3	66-3200	L	C	B	3-2 1/16 r	5⅞	FP	No	Ma	M	DR	DR	P.Ow	Lo	.....	Own	Jac	O4IM	175	a	2I	85⅛	50¼	37	36x1¾	45x2½	N
106	200	4.9	127	26.3	60-3000	L	C	B	3-2 1/16 r	5⅝	CC	No	Ma	M	DR	DR	P.Ow	Lo	.....	Own	Jac	B4IM	290	a	TX	87	48	34	38x2	50¼x2½	N
107	257	4.5	185	28.3	76-2500	H	G	C	4-2⅜	8⅛	PC	Ha	Ma	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	239	a	TX	87	48	34	38x2	50¼x2½	N
108	257	4.5	185	28.3	76-2500	H	G	C	4-2⅜	8⅛	PC	Ha	Ma	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	290	a	TX	87	48	34⅛	38x2	50¼x2½	½
109	257	4.5	185	28.3	76-2500	H	G	C	4-2⅜	8⅛	PC	Ha	Ma	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	288	a	TX	107	59	34 1/16	38x2½	50x3	½
110	275	4.5	185	28.3	76-2500	H	G	C	4-2⅜	8⅛	PC	Ha	Ma	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	345	a	TX	107	59	34 1/16	38x2½	50x3	½
111	257	4.5	185	28.3	76-2500	H	G	C	4-2⅜	8⅛	PC	Ha	Ma	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	320	a	TX	107	59	34 1/16	38x2½	50x3	½
112	257	4.5	185	28.3	76-2500	H	G	C	4-2⅜	8⅛	PC	Ha	Ma	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	320	a	TX	107	59	34 1/16	38x2½	50x3	½
113	257	4.5	185	28.3	76-2500	H	G	C	4-2⅜	8⅛	PC	Ha	Ma	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	345	a	TX	107	59	34 1/16	38x2½	50x3	½
114	331	4.4	230	33.7	94-2500	H	G	C	4-2½	8 21/32	PC	Ha	Ma	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	379	a	TX	125	70	34 1/16	40x3	50x3	½
115	331	4.4	230	33.7	94-2500	H	G	C	4-2½	8 21/32	FC	Ha	Ma	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	379	a	TX	125	70	34 1/16	40x3	50x3	½
116	331	4.4	230	33.7	94-2500	H	G	C	4-2½	8 21/32	PC	Ha	Ma	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	418	a	TX	125	69¼	34 1/16	40x3	54x3	½
117	331	4.4	230	33.7	94-2500	H	G	A	4-2½	8 21/32	PC	Ha	Str	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IMV	449	a	TX	125	69¼	34 1/16	40x3	54x3	½
118	331	4.4	230	33.7	94-2500	H	G	A	4-2½	8 21/32	PC	Ha	Str	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IM	483	a	TD	125	70	34 1/16	40x3	54x3	½
119	331	4.4	230	33.7	94-2500	H	G	A	4-2½	8 21/32	PC	Ha	Str	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IMV	557	a	TD	125	70	34 1/16	40x3	54x3	½
120	468	4.6	340	43.3	113-2100	H	C	A	7-2¾	14 11/32	FP	Ha	Str	M	DR	DR	D.Ow	Lo	.....	Own	Jac	B4IMV	594	a	TX	137	82	34 1/16	50x3½	54x3	½

Line Number	MAKE AND MODEL	GENERAL (See Keynote) Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	TIRE SIZE Chassis Wt. (Stripped)	Front	Rear	MAJOR UNITS ENGINE Make and Model	ENGINE No. of Cylinders Bore and Stroke	TRANSMISSION Make and Model	TRANSMISSION Location and Forward Speeds	TRANSMISSION Aux. Location and Speeds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive and Torque	REAR AXLE GEAR RATIOS In High	REAR AXLE GEAR RATIOS In Low	FRAME Side Rail Dimensions	FRAME Type
1	Gramm.....AX4	1–1½	795	131	157	8000	3350	B6.50/20	B6.50/20	Con W10	4–3⅞x4¼	WG TA	U 4	No	Tim 53200H	BF	H	5.66	36.3	6x2¾x¼	C
2	.....AX6	1–1½	895	131	157	8000	3550	B6.50/20	B6.50/20	Con 25A	6–3⅜x4	WG T9	U 4	No	Tim 53200H	BF	H	5.66	36.3	6x2¾x¼	C
3	.....BX4	1½–2	895	131	210	10000	3525	B6.00/20	DB6.00/20	Con W10	4–3⅞x4¼	WG T9	U 4	No	Tim 53200H	BF	H	6.2	39.6	6x2¾x¼	C
4	.....BX6	1½–2	995	131	210	10000	3725	B6.00/20	DB6.00/20	Con 25A	6–3⅜x4	WG T9	U 4	No	Tim 53200H	BF	H	6.2	39.6	6x2¾x¼	C
5	.....B	1¾	1295	140	196	12000	4150	B6.50/20	DB6.50/20	Lyc 48L	6–3¼x4½	Co A4J	U 4	No	Tim 54200H	BF	H	5.83	37.1	6x2½x¼	C
6	.....CX4	2–3	1095	131	210	12000	3950	B6.50/20	DB6.50/20	Con W20	4–4¼x4¼	WG T9	U 4	No	Tim 54200H	BF	H	5.8	37.0	10x2¾x¼	C
7	.....CX6	2–3	1295	131	210	12000	4150	B6.50/20	DB6.50/20	Con 16C	6–3⅜x4⅝	WG T9	U 4	No	Tim 54200H	BF	H	5.8	37.0	10x2¾x¼	C
8	C	2–3	1795	160	224	14000	4820	B7.00/20	DB7.00/20	Lyc AS	6–3⅜x4½	BL 314	U 4	No	Tim 54200H	BF	H	5.8	37.1	7x2½x¼	C
9	.....D	2½–4	1995	160	224	17000	5100	B7.50/20	DB7.50/20	Lyc ASD	6–3¾x4½	BL 314	U 4	No	Tim 56200H	BF	H	6.1	39.0	7x2½x¼	C
10	.....E330	3–4½	2595	160	224	20000	5950	B8.25/20	DB8.25/20	Lyc TS	6–3¾x5	BL 554	U 4	No	Tim 58200H	BF	H	5.5	35.6	12x2½x¼	C
11	.....EY190	3	3595	190	190	16000	6750	B7.50/20	DB7.50/20	Con 20R	6–4½x4¾	Co Rus4	U 4	No	Tim 58200H	BF	H	4.5	29.1	8¾x3¼x¼	C
12	.....GW	5–7½	5175	157	240	28000	9500	B9.00/20	DB9.00/20	Con 21R	6–4⅜x4¾	BL	U 4	No	Wis 1627KW	2F	H	6.3	41.0	7½x3x¼	C
13	.....HY	5	6595	210	236	22000	10100	B9.00/20	DB9.00/20	Con 16H	6–4¾x5¾	Fu HU16	U 4	No	Wis12527KW	2F	H	4.0	25.2	8¾x3¼x¼	C
14	.....GY	4	4345	190	210	18000	7700	B8.25/20	DB8.25/20	Con 21R	6–4⅜x4¾	Co Rus	U 4	No	Wis 69317H	2F	H	4.3	27.9	8¾x3¼x¼	C
15	.....G	4–6	3695	150	225	24000	7950	B9.00/20	DB9.00/20	Con 21R	6–4¾x4¾	BL	U 4	No	Wis 1237H	2F	H	6.8	49.0	12x2½x¼	C
16	G.–P.....35-6	1¼–2	1535	156	160	.....	3800	B7.00/20	DB7.00/20	Lyc WTG	6–3x4¾	Fu MKV	U 4	No	Tim 53200H	SF	H	5.37	34.9	8x2½x¼	T
17	.....(7) 45-6	2–3	2700	157	161	12500	4300	B7.50/20	DB7.50/20	Lyc SB	6–3⅜x4½	Fu MLU	U 4	No	Tim 54200H	SF	H	6.35	38.0	8x3¼x¼	T
18	.....(7) 55-6	3–4	3185	154	191	15000	5900	B8.25/20	DB8.25/20	Lyc ASD	6–3¾x4½	Fu JVU	U 5	No	Tim 56200H	SF	H	7.25	55.0	9x3¼x⅛	T
19	.....(7) 65-6	3½–5	3875	158	195	17500	7100	B9.00/20	DB9.00/20	Lyc TS	6–3⅞x5	Fu VUOG	U 5	No	Tim 58200H	SF	R	7.80	56.0	10x3½x⅛	T
20	75-6	4–6	4915	154	191	20000	7400	B9.75/20	DB9.75/20	Wau SRL	6–4⅜x5½	Fu VUOG	U 5	No	Wis 1137H	DF	R	7.75	65.	11x3½x⅛	T
21	75-8	4–6	4860	174	Op	20000	7500	B9.75/20	DB9.75/20	Lyc AEC	8–3¾x4¾	Fu VUOG	U 5	No	Wis 1137H	DF	R	7.25	51.2	11x3½x⅛	T
22	85-6	5–7	6875	169	Op	24000	9200	B10.50/20	DB10.50/20	Wau 6AB	6–4½x5¾	Fu MHU	U 4	A	Wis 1567W	DF	R	9.00	113.	12x3½x⅛	T
23	95-6	7–10	7850	159	196	33000	10400	B10.50/24	DB10.50/24	Wau 6RB	6–5x5¾	Fu MHU	U 4	A	Wis 19000W	DF	R	10.1	125.	14x3½x⅛	T
24	.....(7) 35T-6	6	1595	152	...	.....	4050	B7.50/20	DB7.50/20	Lyc ASD	6–3¾x4½	Fu MKU	U 4	No	Tim 53200H	SF	H	5.37	34.9	8x2½x¼	T
25	.....(7) 45T-6	8	3185	149	171	.....	4425	B8.25/20	DB8.25/20	Lyc TS	6–3⅞x5	Fu JVUOG	U 5	No	Tim 54000H	SF	H	6.35	45.2	8x2½x¼	T
26	.....65T-6	10	4170	162	179	.....	7850	B9.00/20	DB9.00/20	Wau 5RL	6–4⅜x5½	Fu VUOG	U 5	No	Tim 58200H	SF	R	7.57	55.1	10x3x¼	T
27	.....65T-8	10	4230	162	179	.....	7850	B9.00/20	DB9.00/20	Lyc AEC	8–3¾x4¾	Fu VUOG	U 5	No	Tim 58200H	2F	R	7.57	55.1	10x3x¼	T
28	.....75T-6	12	5445	162	179	.....	8850	B9.75/20	DB9.75/20	Wau 5RK	6–4½x5½	Fu VUOG	U 5	No	Wis 1137W	2F	R	8.1	56.6	11x3x¼	T
29	.....75T-8	12	5400	162	179	.....	8850	B9.75/20	DB9.75/20	Lyc AED	8–3¾x4¾	Fu VUOG	U 5	No	Wis 1137W	2F	R	9.0	63.7	11x3x¼	T
30	Hahn-Selden....17	1½	1500	142	...	7900	3750	P32x6	P32x6	Con 18E	6–3¾x4	BL 20	U 4	No	Tim 52000H	BF	R	5.8	24.1	5⅝x2¾x⅛	C
31	317	1½	1610	142	...	7900	3900	P32x6	P32x6	Con 16C	6–3⅜x4⅝	BL 35	U 4	...	Tim	BF	R	5.8	24.1	.....	C
32	37	2	1935	151	...	10000	4800	P32x6	DP32x6	Con 16C	6–3⅜x4⅝	BL 35	U 4	No	Tim 54200H	BF	R	5.8	31.	5¾x2¾x¼	C
33	39	2½	2920	164	...	13000	5800	P32x6	DP32x6	Con 16R	6–4x4½	BL 35	U 4	No	Tim 56200H	BF	R	6.1	33.	7x3½x¼	C
34	.....47B	3	3785	151	...	15500	7200	P34x7	DP34x7	Con 18R	6–4x4½	BL 51	U 4	No	Tim 58000H	BF	R	6.8	37.	7x3½x¼	C
35	.....47D	4	4435	151	184	19500	7800	P36x8	DP36x8	Con 18R	6–4x4½	BL 51	U 5	No	Wis 1237H	2F	R	7.3	43.8	7x3½x⅛	C
36	67	5	4975	151	184	23500	8700	P36x8	DP36x8	Con 21R	6–4⅜x4¾	BL 55	A 7	A	Wis 1537H	2F	R	7.1	67.	7x3½x¼	C
37	Hendrickson....17S	2½	3350	Op	Op	17000	6500	B8.25/20	B8.25/20	Wau MK	6–4⅛x4¾	Fu JVU	U 5	No	Cla B800	2B	R	Opt	Opt	6x2½x⅛	P
38	.....19S	3	3800	Op	Op	19000	7000	B9.00/20	B9.00/20	Wau MK	6–4⅛x4¾	Fu VU	U 5	No	Cla B800	2F	R	Opt	Opt	6x2½x⅛	P
39	.....U6-24	4	5500	Op	Op	24000	8200	B9.75/20	DB9.75/20	Wau 6SRL	6–4⅜x5½	BL 60-7	A 7	No	Tim 76730	SF	R	Opt	Opt	8x3x⅛	P
40	Hug.....23	2	1785	146	191	10620	5620	B7.00/20	DB7.00/20	Bud H298	6–3¾x4½	Fu MLU	U 4	No	Cla B611	SF	H	5.66	36.	8x3x¼	T
41	61	2	3020	111	...	14210	5400	B8.25/20	DB8.25/20	BudH298	6–3¾x4½	BL 51-4	U 4	No	Wis 6600	2F	H	6.92	37.	6x3x¼	T
42	82	2½	3870	128	...	18800	7000	B9.00/20	DB9.00/20	Bud K369	6–4⅛x4¾	Fu VU	U 5	No	Wis 1237Q	2F	H	8.64	62.	7x3½x¼	T
43	42	3	2175	146	201	14500	6500	B8.25/20	DB8.25/20	Bud H298	6–3¾x4½	Fu MLU	U 4	No	Cla B800	SF	H	6.37	40.5	8x3x¼	T
44	.....41S	3	5070	158	...	19620	8500	B9.75/20	B12.75/20	Bud K428	6–4⅜x4¾	FuMRUAy	U 4	A 3	Wis 1237H	2F	H	8.95	119	8x3x¼	T
45	.....87K	3½	4300	128	...	23900	7600	B9.75/20	DB9.75/20	Bud K428	6–4⅜x4¾	BL 55-7	A 7	No	Wis 1237Q	2F	H	8.64	82.	7x3¼x¼	T
46	43	3½	3380	146	201	21300	7300	B9.75/20	DB9.75/20	Bud K428	6–4⅜x4¾	Fu VU	U 5	No	Wis 1237H	2F	H	8.64	82.	8x3x¼	T
47	99	10	1000	148	...	58500	15100	S36x8	S40x16	Bud GF6	6–4¾x6	BL 714-703	U 4	A 3	Wis SD410	2F	R	10.3	139	9x4⅛x1¼	T
48	Indiana.....95	2	1095	141	169	12000	4400	P32x6	DP32x6	Her JXC	6–3¾x4¼	BL 224	U 4	No	Tim 54300H	SF	H	5.85	36.2	7⅛x2½x⅛	T
49	120	2	1990	156	170	12000	5400	P32x6	DP32x6	Con	6–4x4½	BL	U 4	No	Tim	SF	H	5.85	38.5	7½x3x¼	T
50	.....95DR	2½	1275	141	186	15000	4650	P37.50/20	DP37.50/20	Her JXC	6–3¾x4¼	BL 224	U 4	No	Wis 4916-L	2F	H	6.66	41.2	7⅛x2½x⅛	T
51	140	2½	2495	156	188	14000	6100	P34x7	DP34x7	Con	6–4x4½	BL	U 4	No	Wis	2F	R	6.6	43.5	7½x3x¼	T
52	141	2½–3	2935	170	200	17000	5900	P32x6	DP32x6	Con	6–4x4½	BL	U 4	No	Wis	2F	R	7.0	46.2	7½x3x¼	T
53	675	3	3600	170	224	20000	8000	P34x7	DP34x7	Her RX	6–4½x5¼	.....	U 5	No	Wis 1237H	2F	R	6.8	48.0	8x3x¼	T
54	170	3	3160	170	200	17000	7100	P34x7	DP34x7	Con	6–4⅛x4¾	BL 554	U 4	No	Wis	2F	R	6.41	46.6	8x3x¼	T
55	195	3–4	3820	170	224	19500	7500	P36x8	DP36x8	Con	6–4⅛x4¾	BL	U 4	No	Wis	2F	R	7.2	52.4	8⅛x3x⅛	T
56	220	4–5	4560	170	224	22000	8400	P40x8	DP40x8	Con	6–4⅛x4¾	BL	U 4	No	Wis	2F	R	6.96	50.7	8⅛x3x⅛	T
57	250	5½–7½	5950	182	224	25000	10000	P40x8	DP40x8	Con	6–4⅛x4¾	BL	U 4	No	Tim	WF	R	8.75	63.7	8x3x⅛	T
58	290	7½–10	7250	182	212	30000	10750	P38x7	S40x14	Con	6–4¾x5¾	BL	A 7	No	Tim	WF	R	10.0	95.0	8x3x⅛	T
59	International (8) .A1	1	615	136	.....	.....	2935	B6.00/20	B6.00/20	Wau XAH	4–3¾x4½	War T-9	U 4	No	Own 702	SF	H	6.16	39.5	5⅞x2¾x⅛	T
60	.....B2	1½	665	136	160	.....	2959	B5.50/20	B6.00/20	Wau XAH	4–3¾x4½	MM "O"	U 3	No	Own 701	SF	H	6.16	47.3	5⅞x2¾x⅛	T
61	.....A3	1½	795	136	160	.....	3509	P30x5	P32x6	Lyc SAH	6–3¼x4½	WG T9	U 4	No	Own 710	SF	H	5.28	33.8	7x2¾x⅛	T
62	.....A3½	1½	1250	136	160	10100	3600	B6.00/20	DB6.00/20	Lyc SAH	6–3¼x4½	WG T7	U 4	No	Own 710	SF	H	5.28	33.8	7x2¾x⅛	T
63	.....AL3	1½	1450	138	164	.....	4032	B6.00/20	DB6.00/20	Lyc 4SLH	6–3¼x4½	WG T7	U 4	No	Own 800	S½	H	6.50	42.9	6½x2¼x¼	T
64	.....A4	2	1750	145	185	.....	5221	P32x6	DP32x6	Own FBB	6–3⅝x4½	Own A-5	U 5	No	Own 901	S½	H	6.50	47.8	7x3¾x¼	T
65	.....A5	3	2350	156	210	.....	5895	P34x7	DP34x7	Own FBB	6–3⅝x4½	Own	U 5	No	Own 1000	SF	H	8.5	76.8	8x3¾x¼	T
66	.....A6	3	2675	156	210	.....	6120	P34x7	DP34x7	Own FBB	6–3⅝x4½	Own	U 5	No	Own 1150	2F	H	7.16	64.7	8x3¾x¼	T
67	.....W2	3½	3900	148	200	.....	8400	S36x5	S36x10	HaS 151	4–4¼x5½	Own	U 5	No	Own 1200	2F	H	9.95	83.9	7x3x¼	T
68	.....W3	5	4850	160	235	.....	10125	S36x6°	S40x12°	HaS 152	4–4¼x5½	Own	U 5	No	Own 1301	2R	H	6.37	57.2	12½x3¼x3⅜	.....
69	.....A7	5	6200	160	225	36000	11250	B9.75/20	DB9.75/20	Own FDB	6–4½x5½	Own	U 5	No	Own 1301	2R	H	6.37	57.2	12½x3¼x3⅜	.....
70	.....A8	5	6300	160	225	36000	11250	B9.75/20	DB9.75/20	Own FEB	6–5x5½	Own	U 5	No	Own 1301	2R	H	6.37	57.2	12½x3¼x3⅜	.....
71	Kenworth.....85	1½–2	1275	.....	.....	.....	.....	B7.00/20	B7.00/20	Con 18E	6–3¾x4	BL 214	U 4	...	Cla B370	SF	H	5.4	34.6	5½x3x¼	P
72	.....101B	2–2½	2050	.....	.....	.....	.....	B7.50/20	DB7.50/20	Bud H298	6–3¾x4½	BL 314	U 4	...	Tim 54300H	SF	H	5.83	38.4	5½x3x¼	P
73	127	2½–3	2600	.....	.....	.....	.....	B8.25/20	DB8.25/20	Her WXC	6–4x4½	BL 314	U 4	...	Tim 56200H	SF	H	6.16	40.7	8x2¼x¼	T
74	.....146B	3–4	3300	.....	.....	.....	.....	B9.00/20	DB9.00/20	Bud K393	6–4⅛x4¾	BL 1554	U 4	Op	Tim 58200H	SF	H	6.83	43.4	8x2¼x¼	T
75	.....166B	3½–4	3850	.....	.....	.....	.....	B9.00/20	DB9.00/20	Bud K393	6–4⅛x4¾	BL 1554	U 4	Op	Tim 58200H	SF	H	6.83	43.4	7–9x3x¼	T
76	.....166A	3½–4	4330	.....	.....	.....	.....	B9.00/20	DB9.00/20	HaS 147	6–4x5	BL 1554	U 4	Op	Tim 58200H	SF	H	6.83	43.4	7–9x3x¼	T
77	186	4–5	4675	.....	.....	.....	.....	B9.75/20	DB9.75/20	Her YXC2	6–4½x4¾	BL 1554	U 4	A 3	Tim 75720H	2F	H	7.33	105.	7–9x3x¼	T
78	241	5–7	5450	.....	.....	.....	.....	B9.75/20	DB9.75/20	Her RXB	6–4½x5½	BL 714	U 4	A 3	Tim 76720W	2F	H	7.33	85.5	7–9x3x¼	T
79	.....241A	5–7	6500	.....	.....	.....	.....	B9.75/20	DB9.75/20	HaS 160	6–4¼x5½	BL 714	U 4	A 3	Tim 76720W	2F	H	7.33	85.5	8x3x⅛	C
80	.....241B	5–7	6150	.....	.....	.....	.....	B9.75/20	DB9.75/20	Bud GL-6	6–4½x6	BL 714	U 4	A 3	Tim 76720W	2F	H	7.33	85.5	8x3x⅛	C
81	.....241C	5–7	7200	.....	.....	.....	.....	B9.75/20	DB9.75/20	HaS 175	6–5x6	BL 714	U 4	A 3	Tim 76720W	2F	H	6.38	86.5	8x3x⅛	C
82	Kleiber.....80	1½–2½	1300	140	160	9300	3625	B6.50/20	DB6.50/20	Con 18E	6–3⅜x4	BL 224	U 4	No	Tim 53200H	BF	H	5.8	34.0	5⅝x3¼x¼	C
83	100	2–3½	1750	170	180	11400	4400	B7.00/20	DB7.00/20	Con 16C	6–3⅜x4⅝	BL 314	U 4	No	Tim 54200H	BF	H	6.16	38.7	7½x3x¼	T
84	120	2½–4½	2350	170	180	13200	5150	B7.50/20	DB7.50/20	Con 16R	6–4x4½	BL 314	U 4	No	Tim 56200H	SF	H	6.17	33.4	7½x3x¼	T
85	140	3–5½	3300	180	190	19500	6500	B9.00/20	DB9.00/20	Con 18R	6–4x4½	BL 314	U 4	No	Eat 2413H	DR	H	7.1	77.0	7½x3x¼	T
86	210	4–6	4000	190	192	23400	7100	B9.75/20	DB9.75/20	Con 20R	6–4½x4¾	BL 55	A 7	No	EatDR2412H	DR	R	7.25	77.0	7½x3x¼	T
87	260	7	5000	206	...	26000	9000	B9.75/20	DB9.75/20	Con 21R	6–4⅝x4¾	BL 714	U 4	A 3	Eat 65041W	2	R	8.5	91.0	8x3½x¼	.....
88	La Fr. Republic .A-1	1–1½	795	132	.....	6000	3000	B5.50/20	P32x6	Lyc WTG	6–3x4¾	Fu Wo-BB	U 4	No	Tim 51000H	SF	H	5.86	36.1	5⅞x2x⅛	C
89	.....C-1	1½–2	1295	144	175	7500	3200	B5.50/20	P32x6	Lyc 48L	6–3¼x4½	Fu Wo-BB	U 4	No	Tim 52200H	SF	R	5.83	35.8	6x2x¼	C
90	.....D-1	2–2½	1595	144	175	9000	3750	P30x5	P30x5	Lyc 48L	6–3¼x4½	Fu MKU	U 4	No	Tim 54200H	SF	R	5.83	37.9	6x2x¼	C
91	.....E-1	2½–3	1985	162	190	13000	5000	B32x6	DP32x6	Bud H-260	6–3½x4½	Fu Mlu-Bb	U 4	No	Tim 56200H	SF	R	7.4	47.0	7x3x¼	C
92	.....F-3	3–3½	2485	174	198	15000	5625	P34x7	DP34x7	Lyc ASD	6–3¾x4½	Fu MGU14	U 4	No	Tim 58200H	SF	R	7.8	50.6	8x3x¼	C
93	.....H-2	3½–4½	2985	174	198	16000	6350	P34x7	DP34x7	Lyc TS	6–3⅞x5	Fu MGU	U 4	No	Wis 69317BL	2F	R	6.41	41.6	8x3x¼	C
94	.....H-3	3½–5	3395	179	206	18000	.....	B9.75/20	DP9.75/20	Bud K393	6–4⅛x4¾	Fu MRU	U 4	No	Tim 75720H	2F	R	8.15	54.0	8x3x¼	C
95	.....M-2	4½–5½	4000	174	198	20000	7500	P36x8	DP36x8	Wau 6SRL	6–4⅜x5⅛	Fu VUOG	U 5	No	Wis 1237H	2F	R	7.2	51.0	8x3x¼	C
96	.....M-3	4½–5½	4750	191	204	22000	.....	B10.50/20	DB10.50/20	Wau 6SRL	6–4⅜x5⅛	Fu VUOG	U 5	No	Tim 76725H	2R	R	8.85	62.5	9⅛x3½x⅛	C
97	35-2	5½–6½	5600	174	198	24000	9250	P38x9	DP38x9	Wau 6AB	6–4½x5¾	Fu MHU	U 4	No	Wis 1567H	2F	R	7.33	46.3	9⅛x3½x⅛	C
98	35-3	6½–7½	6400	191	204	28000	.....	B10.50/24	DB10.50/24	Wau 6SRK	6–4½x5⅛	FuMHUAy	A 4	3	Tim 78720W	2F	R	8.90	111.	9⅛x3½x⅛	C
99	.....Q-4	7½–9	8500	Op	260	30000	12750	B10.50/24	DB10.50/24	Own 312B	12–4x5	BL 714	U 4	No	Tim 68720W	W	R	Opt	Opt	12x3½x¼	C
100	Lange.....R	1½	2225	140	172	9300	4600	P32x6	P32x6	Her WXB	6–3¾x4½	BL 31	U 3	No	Tim 54000H	BF	R	5.83	28.0	5x2½x⅛	P
101	.....L2	2	3450	144	210	15000	5800	P32x6	DP32x6	Her WXC	6–4x4½	BL 35	U 4	No	Wis 6617	2F	R	7.00	37.5	6x2½x¼	P
102	.....O	2½	3950	146	212	17000	5985	P34x7	DP34x7	Her YXB	6–4x4¾	BL 51	U 4	No	Wis 8817	2F	R	7.29	39.1	6x2½x¼	P
103	.....H	3	5150	151	187	19000	6850	P36x8	DP36x8	Her YXC	6–4½x4¾	BL 55	U 4	No	Wis 1418	2F	R	9.12	48.7	6½x2½x¼	P
104	.....M	3	5200	140	222	21000	7450	P38x7	DP38x7	Her YXC	6–4½x4¾	BL 60	A 7	No	Wis 1402	2F	R	10.1	95.7	6½x2½x¼	P
105	.....F16	4	5500	148	188	23000	8600	P40x8	DP40x8	Her YXC	6–4½x4¾	BL 60	A 7	No	Wis 1552B	2F	R	10.0	95.5	8x3x⅛	P
106	.....T	5	5775	148	188	26000	9200	P40x8	DP40x8	Her YXC2	6–4½x4¾	BL 60	A 7	No	Wis 1700	2F	R	10.0	96.0	8x3x⅛	P
107	Le Moon.....150	1½	1150	140	152	8000	3300	B6.50/20	B6.50/20	Con 16C	6–3⅜x4⅝	BL 214	U 4	No	Tim 53200H	BF	H	5.14	31.8	6x3x¼	T
108	200	1½–2	1350	160	178	11200	3600	B7.00/20	DB7.00/20	Con 16C	6–3⅜x4⅝	BL 214	U 4	No	Tim 53200H	BF	H	5.14	31.8	6x3x¼	T
109	300	2–3	1575	163	190	12600	4200	B7.50/20	DB7.50/20	Con 16C	6–3⅜x4⅝	BL 214	U 4	No	Tim 54200H	BF	H	6.80	42.1	6½x3¾x¼	C
110	400	3–4	2175	163	190	15300	5000	B8.25/20	DB8.25/20	Wau 6MS	6–3⅝x4¾	BL 314	U 4	No	Tim 56200H	BF	R	6.16	40.6	6½x3¾x¼	C
111	500	4–5	2775	160	190	19500	6000	B9.00/20	DB9.00/20	Wau 6MK	6–4¼x4¾	BL 514	U 4	No	Tim 58200H	BF	R	6.14	40.6	7x4x¼	C
112	501	4–5	3150	160	190	19500	6500	B9.00/20	DB9.00/20	Wau 6SRL	6–4⅜x5½	Fu VUOG	U 5	No	Tim 58200H	BF	R	6.14	40.6	7x4x¼	C
113	.....(9) 600	5–6	3450	169	199	21600	7200	B9.75/20	DB9 75/20	Wau 6SRL	6–4⅜x5½	Fu VUOG	U 5	No	Tim 65720H	WF	R	6.00	43.2	7x4x¼	C
114	Maccar.....40A	2½–4	2400	155	183	15000	5350	P7.50/20	DP7.50/20	Bud H298	6–3¾x4½	BL 314	U 4	No	Tim 56200H	BF	R	6.16	38.7	7x3x¼	C
115	56	3–5	3350	153	194	18000	6200	P8.25/20	DP8.25/20	Bud DW6	6–3¾x5	BL 51	U 4	No	Wis 6787L	2F	R	7.00	37.4	8x3x¼	C
116	.....60A	4–6	4500	153	207	22000	7300	B9.75/20	DB9.75/20	Bud BA6	6–4½x5½	BL 554	U 4	No	Tim 65720H	WF	R	6.8	43.	8x3x¼	T
117	.....86A	5–8	5950	184	235	30000	9500	P10.50/20	DP10.50/20	Her YXCP3	6–4½x4¾	BL 70	A 5	No	Tim 66720W	WF	R	7.6	49.8	12x3x¼	T

Line Number	Engine Details: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	Main Bearings: Number and Diameter	Main Bearings: Length	Oiling System Type	Governor Make	Fuel Syst.: Carburetors Make	Fuel Feed	Electrical: Ignition System Make	Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	Front Axle: Make and Model	Steering Gear Make	Brakes: Service: Make, Location and Type	Lining Area	Drum Material	Hand Type, Location	Body Mounting Data: Cab to Rear of Frame	Cab to Rear Axle	Width of Frame	Springs: Front	Rear	Auxiliary Type
1	200	4.7	121	24.0	50-2800	L	C	A	3-2⅛	5⅞	FP	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81½	51¾	34	36x2¼	45x2½	½
2	214	5.3	142	27.4	71-3200	L	C	A	4-2⅜	6⅜	FP	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81½	51¾	34	36x2¼	45x2½	½
3	200	4.7	121	24.0	50-2800	L	C	A	3-2⅛	5⅞	PC	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81¾	51½	34	36x2¼	45x2½	½
4	214	5.3	142	27.3	71-3200	L	C	A	4-2⅜	6⅜	PC	No	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 30000H	Ros	L4IH	249	p	FD	81¾	51½	34	36x2¼	45x2½	½
5	224	...	...	25.3	61-2900	L	G	C	4-2⅜	8 3/16	PC	Mo	Zen	V	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	94	60⅜	34	40x2¼	50x2½	½
6	227	4.7	136	27.2	55-2400	L	G	C	3-2⅛	5⅞	PC	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	269	p	FD	81	51¾	34	36x2¼	45x2½	½
7	248	5.0	150	27.3	70-3000	L	C	C	7-2⅜	10	FP	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	81	51¾	34	36x2¼	45x2½	½
8	278	4.7	182	31.5	85-3300	L	G	A	4-2⅝	9⅛	PC	Mo	Til	M	AL	AL	P.BL	Pe	Blo	Tim 31000H	Ros	L4IH	260	p	FD	120	77¼	34	42x2¼	56x3	½
9	299	4.9	198	33.7	85-2800	L	G	C	4-2⅝	9⅛	PC	Mo	Til	M	AL	AL	P.BL	Pe	Blo	Tim 33000H	Ros	L4IHV	330	a	FD	120	77¼	34	42x2¼	56x3	½
10	353	4.8	245	36.2	98-2700	L	G	C	4-2¾	10	PC	Mo	Til	M	AL	AL	D.Jo	Pe	Blo	Tim 33000H	Ros	L4IHV	375	a	FD	127	74¼	34	42x2¼	56x3	½
11	380	4.3	238	40.8	88-2400	H	C	C	7-2¾	13 3/16	PC	Mo	Zen	M	AL	AL	D.Jo	Pe	Blo	Eat 423	Ros	L4IHV	375	a	FD	156	90	41⅛	44x2½	60x3	½
12	428	4.1	268	45.9	100-2200	H	C	C	7-2¾	13 3/16	PC	Mo	Zen	M	AL	AL	D.BL	Pe	Blo	Tim	Ros	4IA	576	a	FD	128⅛	73⅞	36	46x3	58x3½	½
13	611	4.1	382	54.1	127-2300	L	G	A	7-3	13 13/16	PC	Pe	Zen	M	AL	AL	D.Fu	Pe	Blo	Tim	Ros	4IA	576	a	FD	198⅛	141⅛	41⅛	44x3	60x4	½
14	428	4.1	268	45.9	100-2200	H	C	C	7-2¾	13 3/16	PC	Mo	Zen	M	AL	AL	D.Jo	Pe	Blo	Eat 423	Ros	L4IHV	375	a	FD	176 1/16	119 1/16	41⅛	44x2½	60x3	½
15	428	4.1	268	45.9	100-2200	H	C	C	7-2¾	13 3/16	PC	Mo	Zen	M	AL	AL	D.BL	Pe	Blo	Tim	Ros	L4IHV	466	a	FD	98	67	34	42x2½	52x3	..
16	201	5.5	...	21.6	63-2900	L	G	C	4-2⅜	7	PC	No	Zen	M	AL	AL	P.BB	Ch	MM	Tim 30000H	Ros	L4IH	...	a	TX	.....	.....	.....	40x2½	54x3	½
17	241	5.1	160	27.3	65-2800	L	G	C	4-2⅜	8 3/16	PC	No	Str	M	AL	AL	D.Fu	Ow	MM	Tim 3000H	Ros	L4IH	...	a	TX	.....	.....	.....	40x2½	54x3	½
18	298	5.1	198	33.4	85-2900	L	G	C	4-2⅝	9⅜	PC	Mo	Str	M	AL	AL	D.Fu	Ow	MM	Tim 3100H	Ros	L4IH	...	a	CD	.....	.....	.....	40x2½	58x3	½
19	353	4.6	252	36.5	97-2750	L	G	C	4-2¾	10	PC	Mo	Str	M	AL	AL	D.Fu	Ow	MM	Tim 33000H	Ros	L4IH	...	a	CD	.....	.....	.....	40x3	58x3½	½
20	462	4.6	300	45.9	100-2400	L	G	C	7-3	13⅞	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim 35100H	Ros	L4IH	...	a	CD	.....	.....	.....	40x3	58x3½	½
21	420	5.2	300	45.0	130-2800	L	G	C	5-2¾	11⅛	PC	Mo	Str	M	AL	AL	D.Fu	Ow	MM	Tim 35100H	Ros	L4IH	...	a	CD	.....	.....	.....	40x3	58x3½	½
22	549	4.5	335	48.6	100-2000	L	G	C	4-3½	11⅜	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim27050TW	Ros	B4IM	...	a	CD	.....	.....	.....	40x3	58x4	½
23	677	4.4	460	60.0	125-2000	L	G	A	4-3½	11¾	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim27050TW	Ros	B4IM	...	a	CD	.....	.....	.....	40x3	58x4	½
24	298	5.1	198	33.5	85-2900	L	G	C	4-2⅜	9⅜	PC	No	Zen	M	AL	AL	P.BB	Ch	MM	Tim 30000H	Ros	L4IH	...	a	TX	.....	.....	.....	40x2½	54x3	½
25	353	4.6	252	36.5	97-2750	L	G	C	4-2¾	10	PC	No	Str	M	AL	AL	D.Fu	Ch	MM	Tim 31000H	Ros	L4IH	...	a	FD	.....	.....	.....	40x2½	54x3	½
26	462	5.1	300	45.4	100-2400	L	G	C	7-3	13⅞	PC	No	Str	M	AL	AL	D.Fu	Ch	MM	Tim 33000H	Ros	L4IH	...	a	FD	.....	.....	.....	40x3	58x3½	½
27	420	5.2	300	45.	130-2800	L	G	C	5-2¾	11⅞	PC	No	Zen	M	AL	AL	D.Fu	Ch	MM	Tim 33000H	Ros	L4IH	...	a	FD	.....	.....	.....	40x3	58x3½	½
28	517	4.5	340	51.3	110-2500	L	G	C	7-3	13⅞	PC	No	Str	M	AL	AL	D.Fu	Ch	MM	Tim35000TW	Ros	W2IM	...	a	FD	.....	.....	.....	40x3	58x3½	½
29	420	5.2	300	45.	130-2800	L	G	C	5-2¾	11⅞	PC	No	Zen	M	AL	AL	D.Fu	Ch	MM	Tim35000TW	Ros	W2IM	...	a	FD	.....	.....	.....	40x3	58x3½	½
30	214	...	137	27.3	66-3000	L	G	A	7-2⅛	8 11/32	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 11703H	Ros	L4IH	380	a	TX	110	.....	34	41x2¼	50x2½	N
31	248	5.0	150	27.3	65-2760	L	G	C	7-2⅜	10⅛	FP	No	Str	V	DR	DR	D.BL	Ow	Blo	Tim 11703H	Ros	L4IH	380	a	TX	110	66	34	41x2¼	50x2½	..
32	248	5.0	150	27.3	65-2760	L	G	C	7-2⅜	10⅛	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 12703H	Ros	L4IH	452	a	TX	120	Opt	34	41x2¼	50x2½	N
33	311	4.1	196	38.4	73-2400	H	C	N	7-2¾	....	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 14703H	Ros	L4IHV	578	a	TD	120	Opt	34	41x2¼	50x2½	N
34	339	4.2	212	38.4	82-2400	H	C	N	7-2¾	....	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 15733H	Ros	L4IHV	658	a	TD	110	Opt	34	40x2½	56x3	½
35	339	4.2	212	38.4	82-2400	H	C	N	7-2¾	....	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 15733H	Ros	L4IHV	768	a	TD	110	Opt	34	40x2½	56x3	½
36	275	4.2	268	45.9	100-2400	H	C	N	7-2¾	....	FP	No	Zen	V	AL	AL	D.BL	Ch	Blo	Tim 16710H	Ros	4IHV	768	a	TD	110	Opt	34	40x2½	56x3½	½
37	380	4.6	240	40.8	87-2500	L	G	C	4-2⅝	9	FP	Wa	Zen	V	AL	AL	D.Fu	Ch	Spi	Cla F318	Ros	L4IHV	490	G	FX	Opt	Opt	32½	40⅛x3½	50½x3	N
38	380	4.6	240	40.8	87-2500	L	G	C	4-2⅝	9	FP	Wa	Zen	V	AL	AL	D.Fu	Ch	Spi	Cla F318	Ros	L4IHV	490	G	FX	Opt	Opt	32½	40⅛x3½	50½x3	N
39	462	4.6	300	45.9	97-2000	L	G	C	7-3	13⅞	FP	Wa	Zen	M	AL	AL	D.BL	Ch	Spi	Tim 27450	Ros	Ws4IA	...	a	FX	Opt	Opt	36	43x3½	53x3½	N
40	298	5.3	200	33.7	80-2800	L	C	C	7-3	9⅞	PC	....	Zen	M	AL	DR	P.BB	Yo	Blo	Cla F318	Ros	L4IH	318	p	CD	Opt	Opt	31½	41x2½	54⅞x3	½
41	298	5.3	200	33.7	80-2800	L	C	C	7-3	9⅞	PC	....	Zen	M	AL	DR	BL	Yo	Blo	Shu 5550	Ros	W2IM	336	G	CD	76	52	34½	41⅞x2½	48½x3	½
42	369	4.8	234	39.6	99-2800	L	G	B	7-3	11½	PC	....	Zen	M	AL	DR	Fu	Yo	Blo	Shu 610	Ros	W2IM	420	G	CD	94¼	70	34½	41⅞x2½	48½x3	½
43	298	5.3	200	33.7	80-2800	L	C	C	7-3	9⅞	PC	....	Zen	M	AL	DR	P.BB	Yo	Blo	Cla F318	Ros	L4IH	322	p	CD	Opt	Opt	31½	41⅞x2½	54⅞x3	½
44	428	4.8	273	45.9	107-2600	L	G	B	7-3	11½	PC	....	Zen	M	AL	DR	Fu	Yo	Blo	Shu 632-5	Ros	L4IH	616	G	CD	115	72½	31½	41⅞x2½	54⅞x3	¼
45	428	4.8	273	45.9	107-2600	L	G	B	7-3	11½	PC	....	Zen	M	AL	DR	BL	Yo	Blo	Shu 610	Ros	W2IM	420	G	TD	94¼	70	34½	41⅞x2½	48½x3	½
46	428	4.8	273	45.9	107-2600	L	G	B	7-3	11½	PC	....	Zen	M	AL	DR	Fu	Yo	Blo	Shu 632-3	Ros	L4IH	616	G	CD	Opt	Opt	31½	41⅞x2½	54⅞x3	½
47	638	4.3	410	54.1	126-1850	L	G	C	4-3	10 1/16	PC	....	Zen	M	RB	DR	BL	Yo	Blo	Shu 715-11	Ros	WrIA	792	G	TD	139	88¼	38⅛	41⅞x2½	53x4	..
48	282	...	...	33.7	90-2500	L	G	A	7-2½	10 11/16	PC	No	Zen	M	AL	AL	P.BB	Yo	Spi	Tim 31020	Ros	L4IH	353	...	TX	102	56	34	37x2¼	54x3	N
49	311	...	...	38.4	73-2400	H	C	N	7-2¾	13 3/16	CC	No	Str	M	AL	AL	D.BL	GO	Spi	Col	Ros	L4IH	353	...	TX	108	69	34	40x2½	54x2½	½
50	282	...	...	33.7	90-2500	L	G	A	7-2½	10 11/16	PC	No	Zen	M	AL	AL	P.BB	Yo	Spi	Tim 31020	Ros	L4IH	353	...	TX	102	56	34	37x2¼	54x3	½
51	311	...	...	38.4	73-2400	H	C	N	7-2¾	13 3/16	CC	KP	Str	M	AL	AL	D.BL	GO	Spi	Col	Ros	L4IHV	656	...	CD	108	69	34	40x2½	54x3	½
52	311	...	...	38.4	73-2400	H	C	N	7-2¾	13 3/16	CC	KP	Str	M	AL	AL	D.BL	GO	Spi	Shu	Ros	L4IHV	380	...	CD	142	84	34	40x2½	54x3	½
53	453	...	...	48.6	110-2200	L	G	..	7-3	12½	PC	KP	Zen	M	AL	AL	D	....	Spi	Shu 5582B26	Ros	L4IHV	471	...	CD	142	83	34	40x2½	54x3	½
54	380	...	...	40.8	88-2400	H	C	N	7-2¾ r	13 3/16	CC	KP	Str	M	AL	AL	D.BL	GO	Spi	Shu	Ros	L4IHV	380	...	CD	142	84	34	40x2½	54x3	½
55	380	...	...	40.8	89-2400	H	C	N	7-2¾	13 3/16	CC	KP	Str	M	AL	AL	D.BL	GO	Spi	Shu	Ros	L4IHV	471	...	CD	142	84	34⅛	40x2½	54x3	½
56	427	...	...	45.9	100-2400	H	C	N	7-2¾	13 3/16	CC	KP	Zen	M	AL	AL	D.BL	GO	Spi	Shu	Ros	L4IHV	546	...	CD	142	84	34⅛	40x2½	54x3	½
57	427	...	...	45.9	100-2400	H	C	N	7-2¾	13 3/16	CC	KP	Str	M	AL	AL	D.BL	Lo	Spi	Shu	Ros	LT4IHV	664	...	CD	162	99	36	40x3	54x4	½
58	611	...	...	54.2	116-1800	L	C	C	7-3	13 13/16	FP	Pe	Str	E	LN	LN	D.BL	Lo	Spi	Shu	Ros	T4IA	676	...	TD	162	99	36	40x3	54x4	½
59	186	4.6	124	21.	39-2400	L	G	C	3-2	6⅞	PC	No	Zen	V	DR	DR	P.MM	Mo	MM	Own 101	Ros	BE4IM	212	P	TX	93⅝	53⅝	32⅛	40x2	46x2½	N
60	186	4.6	124	21.	39-2400	L	G	C	3-2	6⅞	PC	No	Zen	V	DR	DR	P.MM	Mo	MM	Own 101	Ros	BE4IM	212	P	TX	93⅝	53⅝	32⅛	40x2	46x2½	N
61	224	4.7	138	25.3	54-2700	L	G	A	4-2⅜	8 3/16	PC	No	Zen	M	DR	DR	P.Ro	Mo	MM	Own 105	Ros	B4IM	287	P	2I	93⅝	53⅝	32 1/16	40x2	46x2½	½
62	224	4.7	138	25.3	54-2700	L	G	A	4-2⅜	8 3/16	PC	No	Zen	M	DR	DR	P.Ro	Mo	MM	Own 200	Ros	B4IM	302	P	2I	93⅝	53⅝	32 1/16	40x2¼	46x2½	½
63	224	4.7	138	25.3	54-2700	L	G	A	4-2⅜	8 3/16	PC	No	Zen	V	DR	DR	P.Ow	Mo	MM	Own 200	Ros	B4IM	295	PG	2I	98⅛	55⅝	32	40x2¼	52x2½	¼
64	279	4.6	176	31.5	67-2600	H	G	C	7-2½	13 1/32	PC	Ha	Zen	V	DR	DR	P.Ow	Mo	MM	Own 251	Ros	BE4IM	378	PG	2I	104	61½	34	42x3	54x3	¼
65	279	4.6	176	31.5	67-2600	H	G	C	7-2½	13 1/32	PC	Ha	Zen	V	DR	DR	P.Ow	Mo	MM	Own 300	Ros	BE4IM	430	PG	2I	115	72½	34	42x3	56x3	¼
66	279	4.6	176	31.5	67-2600	H	G	C	7-2½	13½	PC	Ha	Zen	V	DR	DR	P.Ow	Mo	MM	Own 300	Ros	BE4IM	430	PG	2I	115	72½	34	42x3	56x3	¼
67	312	4.0	200	28.9	59-1800	H	C	A	3-2¾	8¾	PC	HS	Zen	V	RB	DR	P.Ow	Ow	Ow	Own 400	Own	BE4IM	710	PG	2I	106½	73¼	34	41⅛x3	56x3½	¼
68	390	3.8	240	36.1	69-1800	H	G	A	3-3	8⅜	PC	HS	Zen	V	RB	DR	P.Ow	Ow	Ow	Own 500	Own	BE4IM	794	PG	2I	120	81⅞	34	44x3	58x4	¼
69	525	4.5	312	48.6	117-2200	H	G	C	7-3¼	17¾	PC	Ha	Zen	M	DR	DR	P.Ro	Mo	MM	Own 503	Ros	BO4IV	729	PG	TD	106	72	34	48x3	56x3	N
70	648	4.4	415	60.0	136-2100	H	G	C	7-3¼	17¾	PC	Ha	Str	M	DR	DR	P.Ro	Mo	MM	Own 503	Ros	BO4IV	729	PG	TD	106	72	34	48x3	56x3	N
71	214	4.9	137	27.3	61-3000	L	C	A	7-2⅛	9 11/16	CC	No	Zen	M	DR	DR	P.BL	Pe	Spi	Cla F208	Ros	L4IH	222	p	TX	.....	.....	34⅛	40x2¼	52x3	..
72	298	4.7	200	33.7	80-2800	L	C	C	7-3	9⅞	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Cla F308	Ros	L4IH	335	a	FD	.....	.....	34⅛	39x2½	53½x3	½
73	339	4.4	212	38.4	76-2400	L	G	A	7-2⅝	13¼	CC	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	335	a	FD	.....	.....	31½	40x2½	52x3	½
74	393	4.9	260	42.1	103-2600	L	G	C	7-3	11½	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 33000H	Ros	L4IH	394	a	FD	.....	.....	31½	40x2½	52x3	½
75	393	4.9	260	42.1	103-2600	L	G	C	7-3	11½	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35100H	Ros	L4IH	455	a	FD	.....	.....	33¾	42x2½	56x3½	½
76	377	4.9	258	38.4	92-2300	H	C	A	4-2⅞	11⅛	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35100H	Ros	L4IH	455	a	FD	.....	.....	33¾	42x2½	56x3½	½
77	453	4.8	300	48.6	98-2200	L	G	A	7-3	14	CC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35100H	Ros	L4IH	602	a	FD	.....	.....	33¾	42x2½	56x3½	½
78	501	4.9	330	48.6	110-2200	L	G	A	7-3	12½	CC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws2rMV	407	a	FD	.....	.....	33¾	42x3	56x4	½
79	468	4.4	322	43.3	125-2400	H	C	A	4-2¾	10⅜	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws2rMV	407	a	FD	.....	.....	33¾	42x3	56x4	½
80	572	4.3	358	48.6	114-1900	L	G	C	4-3	10 7/16	CC	Bu	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws2rMV	407	a	FD	.....	.....	33¾	42x3	56x4	..
81	707	4.4	506	60.0	170-2000	H	C	A	7-3¼	11 1/16	FP	HS	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws2rMV	407	a	FD	.....	.....	33¾	42x3	56x4	½
82	214	...	137	27.3	61-3000	L	C	C	7-2⅛	8 11/32	FP	No	Str	V	DR	DR	D.BL	Mo	Spi	Tim 30000H	Ros	L4IH	308	G	TX	101	Opt	34	38x2¼	52x2½	N
83	248	4.4	160	27.4	70-3200	L	C	C	7-2⅜	10 3/32	PC	No	Str	M	DR	DR	D.BL	Ow	Spi	Tim 31000H	Ros	L4IH	452	G	TX	126	76	34	38x2½	52x2½	½
84	311	4.2	196	33.8	73-2400	H	C	C	7-2¾	13	PC	No	Str	M	DR	DR	D.BL	Ow	Spi	Tim 31000H	Ros	L4IH	354	G	F	Opt	Opt	34	38x2½	52x3	½
85	339	4.2	212	38.4	80-2400	H	C	C	7-2¾	13 3/16	FP	No	Str	V	DR	DR	D.BL	Ow	Spi	Tim 33020H	Ros	L4IH	648	G	TD	164	104	34	38x2½	52x3	¼
86	381	4.2	237	40.8	89-2400	H	C	C	7-2¾	13 3/16	CC	No	Str	M	DR	DR	D.BL	Ow	Spi	Tim 35020H	Ros	L4IHV	676	G	FD	170	Opt	34	38x2½	52x3	¼
87	427	4.2	270	45.9	102-2400	H	C	C	7-2¾	13 3/16	FP	No	Str	M	DR	DR	D.BL	Ow	Spi	Tim 26450	Ros	Ws	848	G	FD	.....	130	38	44x2½	52x3	½
88	201	5.4	142	21.5	60-2500	L	G	C	4-2⅜	7	PC	No	Zen	V	AL	AL	P.BB	Pe	Spi	Tim 11710H	Ha	L4IH	268	p	TX	96	54	31⅞	38x2	52½x2½	N
89	224	4.7	145	25.3	61-2750	L	G	C	4-2⅜	8 3/16	PC	No	Zen	V	AL	AL	P.BB	Pe	Spi	Tim 11710H	Ha	L4IH	287	p	TX	109	60⅞	32	38x2	57½x2½	½
90	224	4.7	145	25.3	61-2750	L	G	C	4-2⅜	8 3/16	PC	No	Zen	V	AL	AL	P.BB	Pe	Spi	Tim 31000H	Ha	L4IH	271	D	TX	109	60⅞	32	38x2	57½x2½	½
91	260	5.3	166	29.4	69-2600	L	G	C	7-3	9⅞	PC	Ha	Zen	V	AL	AL	P.BB	Pe	Spi	Tim 31000H	Ros	L4IHV	327	D	TX	120	78¾	32	38x2	57½x2½	½
92	299	4.9	195	33.5	82-2600	L	G	C	4-2¾	10	PC	Ha	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 33020H	Ros	L4IHV	367	D	FD	140¼	93	32	39x2½	60x3	½
93	354	4.3	228	36.2	86-2300	L	G	C	4-2¾	10	FP	Ha	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 33020H	Ha	L4IHV	367	D	FD	137¼	90	32	39x2½	60x3	½
94	393	4.8	260	42.1	94-2400	L	G	C	7-3	11½	PC	Ha	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 33000H	Ros	L4IHV	458	D	FD	144	75	32	39x2½	60x3	½
95	462	4.6	310	46.0	97-2000	L	G	C	7-3	13⅞	PC	Wa	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 35020H	Ros	L4IHV	483	D	FD	133	85¾	32 1/16	44x3	60x3	½
96	462	4.6	310	46.	97-2000	L	G	C	7-3	13⅞	PC	Wa	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim 35000H	Ros	L4IHV	468	D	FD	168	88	32¼	44x3	60x3½	½
97	549	4.6	350	48.6	98-1850	L	G	C	4-3½	11⅜	PC	Wa	Zen	M	AL	AL	D.Fu	Ow	Spi	Tim 26450H	Ha	L4IHV	487	D	FD	128½	81¼	36	44x3	60x3½	½
98	517	4.6	335	51.	100-1800	L	G	A	7-3	13⅞	PC	Wa	Zen	M	AL	AL	D.Fu	Pe	Spi	Tim27450TW	Ros	Ws4IA	690	D	FD	168	88	32½	44x3	60x3½	½
99	754	5.1	510	76.7	240-2900	H	C	C	4-3½	10	PC	No	Zen	M	DR	DR	dpLo	Ow	Blo	Tim27450TW	Ros	Ws4IA	...	D	CD	.....	.....	34	44x3	60x4	½
100	298	4.7	190	33.7	67-2400	L	C	C	7-2⅝	13½	PC	No	Zen	M	DR	DR	D.BL	Mo	Spi	Tim 12703H	Ros	L4IH	302	D	CD	84	56	33	38x2½	50x2½	½
101	339	4.7	223	38.4	74-2400	L	G	C	7-2⅝	13½	PC	Pe	Str	V	AL	AL	D.BL	Mo	Spi	Shu 5572	Ros	L4IHV	678	G	CD	104	62	33	40x2½	56x3	½
102	359	4.4	228	38.4	80-2200	L	G	C	7-3	15	PC	Pe	Str	V	AL	AL	D.BL	Mo	Spi	Shu 5572	Ros	L4IHV	678	G	CD	106	65	33	40x2½	56x3	½
103	428	4.4	280	45.9	94-2200	L	G	C	7-3	15	PC	Pe	Str	M	AL	AL	D.BL	Mo	Spi	Tim 15300	Ros	W2IM	615	G	TD	112	75	33	42x2½	56x3	½
104	428	4.4	280	45.9	94-2200	L	G	C	7-3	15	PC	Pe	Str	M	AL	AL	D.BL	Mo	Spi	Tim 16310	Ros	W2IM	802	G	TD	95	73	33	42x2½	56x3	½
105	428	4.4	280	45.9	94-2200	L	G	C	7-3	15	PC	Pe	Str	M	AL	AL	D.BL	Mo	Spi	Tim 16300	Ros	W2IM	802	G	TD	154½	99½	37	42x2½	56x4	½
106	453	4.6	300	48.6	99-2200	L	G	C	7-3	15	PC	Pe	Str	M	AL	AL	D.BL	Mo	Spi	Tim 16300	Ros	W2IM	802	G	TD	154½	99½	37	44x3	56x4	½
107	248	4.4	150	27.3	65-2800	L	C	C	7-2⅜	10 7/16	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 30000H	Ros	L4IH	275	C	TX	96	58	34	37½x2¼	49½x2½	N
108	248	4.4	150	27.3	65-2800	L	C	C	7-2⅜	10 7/16	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 30000H	Ros	L4IH	275	C	TX	128	81	34	37½x2¼	50x2½	N
109	248	4.4	150	27.3	65-2800	L	C	C	7-2⅜	10 7/16	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 31000H	Ros	L4IH	293	C	TX	128	81	34	37½x2¼	50x2½	½
110	315	4.6	200	33.7	72-2500	L	G	C	7-2⅝	12⅞	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 33000H	Ros	L4IH	345	C	TX	128	81	34	37½x2¼	50½x2½	½
111	381	4.4	242	40.8	85-2500	L	G	C	7-2⅝	12½	PC	No	Str	M	DR	DR	D.BL	Ch	Spi	Tim 35000H	Ros	L4IHV	385	C	CD	128	81	34	39x2½	53x3	½
112	462	4.5	300	45.9	98-2000	L	G	C	7-3	13⅞	PC	Wa	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L4IHV	385	C	CD	128	81	34	39x2½	53x3	½
113	462	4.5	300	45.9	98-2000	L	G	A	7-3	13⅞	PC	Wa	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L4IHV	485	C	RI	128	81	34	39x2½	53x3	½
114	298	4.7	188	33.7	83-2800	L	G	C	7-3	9⅞	FP	Ha	Str	M	DR	DR	P.BL	Pe	Spi	Tim 14703H	Ros	L4IHV	343	a	TD	114	72½	32	42x2½	54x2½	½
115	331	4.5	200	33.7	73-2100	L	G	C	4-2½	9	FP	Bu	Str	V	DR	DR	D.BL	Pe	Spi	Tim 35020H	Ros	L4IHV	412	a	TD	107½	70	32	42x2½	54x3	½
116	411	4.5	272	40.8	103-2100	L	G	C	4-2½	9⅞	FP	Ha	Str	M	DR	DR	D.BL	Pe	Spi	Tim 35020H	Ros	L4IHV	527	a	TD	104½	68	32	42x2½	54x3	½
117	479	4.5	318	51.2	102-2000	L	G	C	7-3	14	PC	Ha	Zen	M	DR	DR	D.BL	Pe	Spi	Tim26450TW	Ros	Ws4IA	623	a	TD	144	95	33	42x3	58x3	½

Line Number	MAKE AND MODEL	GENERAL (See Keynote) Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	TIRE SIZE Front	TIRE SIZE Rear	MAJOR UNITS ENGINE Make and Model	ENGINE No. of Cylinders Bore and Stroke	TRANSMISSION Make and Model	TRANSMISSION Location and Forward Speeds	TRANSMISSION Aux. Location and Speeds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive and Torque	REAR AXLE GEAR RATIOS In High	REAR AXLE GEAR RATIOS In Low	FRAME Side Rail Dimensions	FRAME Type
1	Mack BL	1–2	2500	138	148	8250	4050	B6.00/20	DB6.00/20	Own BL	6–3¼ x5	Own BG	U 4	No	Tim52000B2	SF	H	5.66	27.9	7x3x ¼	T
2	BG	1½–3	3000	138	192	10850	4800	P32x6	DP32x6	Own BG	6–3⅜x5	Own BG	U 4	No	Own BG	SF	H	5.44	26.8	7x3x ¼	T
3	BF	2½–4	4200	156	198	14500	6600	B8.25/20	DB8.25/20	Own BG	6–3⅜x5	Own AB	U 4	No	Own AB	2F	H	7.01	33.9	7 ⅛ x3⅛ ⅛	T
4	AB	3–5	4000	147	219	15450	6450	P34x7	DP34x7	Own AB	4–4¼x5	Own AB	U 4	No	Own AB	CD	H	7.72	37.4	8x2¼ x¼	T
5	AB	3–5	4200	147	219	15425	6700	P34x7	DP34x7	Own AB	4–4¼x5	Own AB	U 4	No	Own AB	2F	H	7.58	33.7	8x2¼ x¼	T
6	AB	3–5	4150	147	219	15450	6450	P34x7	DP34x7	Own BG	6–3⅜x5	Own AB	U 4	No	Own AB	CD	H	7.72	37.4	8x2¼ x¼	T
7	AB	3–5	4350	147	219	15450	6450	P34x7	DP34x7	Own BG	6–3⅜x5	Own AB	U 4	No	Own AB	2F	H	7.58	35.7	8x2¼ x¼	T
8	BC	4–6	5250	154	190	19750	7850	P36x8	DP36x8	Own BC	6–4x5½	Own BC	U 4	No	Own BC	2F	H	7.58	44.2	8¼ x3x ⅛	T
9	BJ	5–8	6450	168	245	26575	9800	B10.50/22	DB10.50/22	Own BK	6–4½x5½	Own AL	A 4	No	Own AK	2F	H	6.92	36.4	11¼x3¼x¼	T
10	AK	5–8	5150	162	228	28500	9500	B10.50/24 °	DB10.50/24°	Own AC	4–5x6	Own AC	J 4	No	Own AC	CD	H	7.83	50.5	8¼ x2⅜x ¼	C
11	AK	5–8	5250	162	228	28500	9400	B10.50/24 °	DB10.50/24°	Own AC	4–5x6	Own AK	A 4	No	Own AK	2F	H	6.92	55.3	8¼ x2⅜x ¼	C
12	AK	5–8	6450	174	240	26100	10400	B10.50/22	DB10.50/22	Own BK	6–4½x5½	Own AC	A 4	No	Own AK	2F	H	6.92	44.3	8¼ x2⅜x ¼	C
13	AC	5–8	4950	168	240	28000	9200	B10.50/24 °	DB10.50/24°	Own AC	4–5x6	Own AC	J 4	No	Own AC	CD	R	8.46	54.4	8x3x ⅛	C
14	AC	6–9	6550	186	240	28500	11400	B10.50/24	DB10.50/24	Own BK	6–4½x5½	Own AC	A 4	No	Own AC	CD	R	8.4	53.9	8x3x ⅛	C
15	AP	7½–10	8500	191	191	.....	11700	S36x7	DS40x8	Own AP	6–5x6	Own AP	J 4	No	Own AP	CD	R	8.31	53.3	8x3x ⅛	C
16	Marmon-Herr. T-30	3½	5785	158	188	18450	8450	B9.00/20	DB9.00/20	Her WXC3	6–4¼ x4½	Fu JVUOG	U 5	A 2	Wis	2F	H	Opt	Opt	6x2¾ x¼	P
17	T-31	4	6785	163	193	20620	9620	B9.75/20	DB9.75/20	Her YXC3	6–4⅝x4¾	Fu VUOG	U 5	A 2	Wis	2F	H	Opt	Opt	8x3x ⅛	P
18	T31-A	5	7785	163	193	23120	10120	B9.75/22	DB9.75/22	Her RXC	6–4⅝x5¼	Fu VUOG	U 5	A 2	Wis	2F	H	Opt	Opt	8x3x ⅛	P
19	T-32	5½ up	9500	198	228	30190	14690	B10.50/22	DB10.50/22	Her HXB	6–5x6	BL 724	U 4	A 3	Wis	2F	H	Opt	Opt	10½x3x⅜	P
20	T-33	5½ up	12,00	198	228	33920	14920	B11.25/24	DB11.25/24	Her HXD	6–5½x6	BL 724	U 4	A 3	Wis	2F	H	Opt	Opt	10½x3x⅜	P
21	Moreland RR-8	1½	1750	159	....	8000	4195	B5.50/20	DB5.50/20	Con 16C	6–3⅜x4⅝	BL 224	U 4	No	Tim 53200H	SF	R	5.66	35.0	7 ⅛ x2⅝x¼	T
22	RR-10	2	1950	159	....	10000	4585	B6.50/20	DB6.50/20	Con 16C	6–3⅜x4⅝	BL 224	U 4	No	Tim 54200H	SF	R	5.83	36.1	7 ⅛ x2⅝x¼	T
23	B13, 15	2½–3½	2850	184	....	15000	5815	B8.25/20	DB8.25/20	Her WXC	6–4x4½	BL 314	U 4	....	Tim 56200H	SF	R	6.17	40.7	9 ⅛ x3½x ⅛	T
24	B16, 18	4–4½	3025	184	....	18000	6195	B9.00/20	DB9.00/20	Her WXC	6–4x4½	BL 314	U 4	....	Tim 58200H	SF	R	6.13	40.5	9 ⅛ x3½x ⅛	T
25	E16, 18	4–4½	3300	184	....	18000	6460	B9.00/20	DB9.00/20	Her WXC3	6–4¼ x4½	BL 51-4	U 4	....	Tim 58200H	SF	R	6.13	32.9	9 ⅛ x3½x ⅛	T
26	E19, 21	5–5½	3800	184	....	21000	7155	B9.75/20	DB9.75/20	Her WXC3	6–4¼ x4½	BL 51-4	U 4	....	Tim 65720H	FW	R	7.25	38.	9 ⅛ x3½x ⅛	T
27	H-24	5½–6½	10	196	....	24000	8700	B9.75/20	DB9.75/20	Her RXB	6–4½x5¼	BL 554	U 4	....	Tim66720TW	FW	R	8.20	59.7	9 ⅛ x2¼x ⅛	T
28	Netco A	1½–2	2800	146	168	8400	4000	B6.00/20	DB6.00/20	Wau 6ZK	6–3⅜x4⅛	BL 214	U 4	No	Tim 52000H	SF	H	4.85	Opt	6x2½ x¼	C
29	B	2½	3000	155	183	12600	5000	B7.50/20	DB7.50/20	Wau 6TL	6–3⅜x4⅜	BL 314	U 4	No	Tim 54000H	BF	H	5.83	Opt	6x3¼	C
30	C	3	3500	148	200	15300	6000	B8.25/20	DB8.25/20	Wau 6MK	6–4¼x4¾	BL 314	U 5	No	Tim 58000H	BF	H	6.83	Opt	7x3x¼	C
31	E	3½	4500	140	200	23400	7560	B9.75/20	DB9.75/20	Wau 6SRL	6–4⅝x5½	BL 55	U 4	No	Tim 65704	WF	R	7.25	Opt	9x3x¼	C
32	J	5	5300	140	200	28200	9500	B10.50/40	DB10.50/40	Wau 6SRK	6–4⅝x5½	BL 615	U 5	No	Tim 68700	WF	R	8.0	9.25	9x3x¼	C
33	K	5½	6500	180	220	37500	11000	B12.00/20	DB12.00/20	Lyc AEC	8–3¾x4¾	BL	U 5	No	Wis 1627KH	2F	R	Opt	Opt	9x3x¼	C
34	Noble 146	2	2885	175	194	11850	4850	P32x6	DP32x6	Bud HS6	6–3¾x4½	Fu	U 4	No	Tim 54200H	BF	H	5.83	37.9	5½x2¾x¼	C
35	156C	3	3350	176	204	14475	5975	P34x7	DP34x7	Con 18R	6–4x4½	Fu MGU	U 4	No	Tim 58200H	BF	H	6.14	39.9	6½x3x¼	C
36	166C	4	4500	180	207	19870	8670	P34x7	DP34x7	Con 20R	6–4½x4¾	Fu G	A 4	Op	Tim 65720H	WF	R	7.23	34.8	8x3¼	C
37	Oshkosh LC	2½	4000	146	165	15150	6950	B9.00/20	B9.00/20	Her WXC	6–4x4½	BL 55-4	U 4	No	Own	2F	H	7.3	53.1	6x3x¼	.....
38	H2A	3	4675	146	165	16550	7550	B9.75/20	DB9.75/20	Her WXC2	6–4¼x4½	BL 55-7	A 7	No	Own	2F	H	8.94	84.9	7x3x¼	.....
39	H2B	3½	4890	146	165	18500	8400	B10.50/22	B10.50/22	Her YXC	6–4⅜x4¾	BL 615	U 5	No	Own	2F	H	8.94	73.4	7x3x½	.....
40	H2C	4	5090	146	165	19700	8700	B11.25/20	B11.25/20	Her RXB	6–4½x5¼	BL 615	U 5	No	Own	2F	H	9.6	78.9	7x3x½	.....
41	Y2D	4–5	5460	146	165	.....	9000	B11.25/20	B11.25/20	Her RXB	6–4½x5¼	BL 60-7	A 7	No	Own	2F	H	9.6	91.2	7x3x½	.....
42	F2A	5–7	6775	146	165	22000	10650	B12.75/20	B12.75/20	Her RXC	6–4½x5¼	BL 70-7	A 7	No	Own	2F	H	9.1	85.5	8x3x½	.....
43	Pierce-Arrow 138385	2	3150	160	200	13000	6000	B8.25/20	DB8.25/20	Own	6–3½x5½	BL 334	U 4	....	Tim 56200	SF	R	5.28	33.5	7⅝x3½x ⅛	C
44	12T361	2½	3000	150	200	12000	5625	B7.50/20	DB7.50/20	Her	6–4¼x4½	Cl B102	U 4	Op	Tim 56200	SF	R	5.28	34.3	7⅝x3½x ⅛	C
45	14T298	2½	3000	150	200	14000	5725	B8.25/20	DB8.25/20	Her	6–3¾x4½	Cl B102	U 4	Op	Tim 56200	SF	R	6.16	64.0	7⅝x3½x ⅛	C
46	15T361	2½	3200	180	200	15000	5800	B8.25/20	DB8.25/20	Her	6–4½x4½	Co RU4SL	U 4	Op	Tim 58200	SF	R	5.57	34.4	7⅝x3½x ⅛	C
47	18W361	3–4	4150	150	200	18000	6660	B9.00/20	DB9.00/20	Her	6–4½x4½	Co RU4SL	U 4	Op	Tim 65720	WF	R	6.8	41.9	8½x2½x ⅛	C
48	18R428	3–4	11	150	200	18000	6860	B9.00/20	DB9.00/20	Her	6–4⅜x4¾	BL 534	U 4	Op	Tim 65720	WF	R	5.4	28.6	8½x2½x ⅛	C
49	1R501	3½	11	150	200	21000	7050	B9.75/20	DB9.75/20	Her	6–4½x5¼	BL 534	U 4	Op	Tim 65720	WF	R	6.8	36.0	8½x2½x ⅛	C
50	24X501	4–5	5400	150	200	24000	9250	B10.50/20	DB10.50/20	Her	6–4½x5¼	Co TNU	U 4	Op	Tim 66720	WF	R	7.6	40.2	9½x2½x ⅛	C
51	24M611	4–5	11	150	200	24000	10200	B10.50/20	DB10.50/20	Her	6–4¾x5¾	Own	A 4	Op	Tim 66720	WF	R	7.6	39.9	9½x2½x ⅛	C
52	28X501	5½	11	160	200	28000	10675	B10.50/24	DB10.50/24	Her	6–4½x5¼	Co TNU	U 4	Op	Own	WF	A	10	53	9½x2½x ⅛	C
53	28M611	5½	11	160	200	28000	11600	B10.50/24	DB10.50/24	Her	6–4¾x5¾	Own	A 4	Op	Own	WF	A	10	53	9½x2½x ⅛	C
54	28Y479	5½	5950	160	200	28000	10675	B10.50/24	DB10.50/24	Her	6–4¾x4¾	Co TNU	U 4	Op	Own	WF	A	10	53	9½x2½x ⅛	C
55	34K611	5½	11	170	....	34000	11675	B10.50/24	DS40x8	Her	6–4¾x5¾	Own	A 4	Op	Own	WF	A	8	42	10x3x ⅛	C
56	(T) 75M779T	.....	11	190	190	75000	12750	B10.50/24	DB10.50/24	Her	6–5¼x6	Own	A 4	A	Own	WF	A	9.9	51.9	9½x2½x ⅛	C
57	Relay 15A	1	1400	131	162	8000	3800	P30x5	P30x5	Con 17E	6–3⅜x4	WG T9	U 4	No	Own	2R	H	6.00	38.4	6x2½x ⅛	C
58	S11	2	1700	142	162	11000	4050	P30x5	P30x5	Bud HS6	6–3⅜x4½	BL 20	U 4	No	Own 20B	2R	R	5.14	25.5	6x2½x ⅛	P
59	40CC	2½	3325	168	192	14000	5950	P36x6	DP36x6	Bud DW6	6–3¾x5	Fu MGU14	U 4	No	Own 30	2R	R	6.45	41.8	6x3x¼	P
60	50	3	4000	161	169	20000	7000	P36x6	DP38x7	Bud DW6	6–3¾x5	BL 51-5	U 5	No	Own 60	2R	R	7.88	58.5	7x3½x¼	P
61	60DA	3½	4555	175	192	25000	7350	P38x7	DP40x8	Bud BA6	6–4½x5½	Fu VU-16	U 5	No	Own 60	2R	R	7.88	58.5	7x3½x¼	P
62	100AC	5	6615	230	180	26000	10000	B9.00/24	DB9.00/24	Con 21R	6–4½x4¾	Fu VU-16	U 5	No	Own 65	2R	R	7.88	58.5	8½x2½x ⅛	P
63	230	5	6750	196	210	30000	11600	B10.50/24	DB10.50/24	Her GXA	6–4¾x5¾	BL 7312	U 4	3	Own 232	2R	R	8.7	....	11½x3¼x¼	P
64	100B	7½	6900	220	180	32000	11200	B9.75/24	DB9.75/24	Bud GF6	6–4¾x6	BL 1714	U 4	No	Own 85AH	2R	R	7.4	49.7	8½x3½x ⅛	P
65	240	7½	7900	174	240	40000	12900	B12.00/24	DB12.00/24	Her HXC	6–5¼x6	BL 7312	U 4	3	Own 245	2R	R	9.14	93	12¼x3½x ⅛	P
66	Reo 1A, 1C	1½	625	136	160	8000	2930	B6.00/20	P32x6	Own	4–3½x4½	Cla	U 4	No	Cla B373	SF	H	5.6	36.9	7x2¾x¾	C
67	1B, 1D	1½	725	136	160	8000	2970	B6.00/20	P32x6	Own	6–3¾x4	Cla	U 4	No	Cla B373	SF	H	5.1	33.7	7x2¾x ⅛	C
68	DFX Tonner	1½	1095	135	135	9000	3200	B6.00/20	DB6.00/20	Own	6–3⅜x5	Cla	U 4	No	Own	S½	H	5.2	34.1	6 ⅛ x3⅛x ⅛	C
69	FAX	2	1295	137	156	11000	3525	B6.50/20	DB6.50/20	Own	6–3⅜x5	Own	U 4	No	Own	S½	H	5.2	34.3	6 ⅛ x3¾x ⅛	C
70	FCX	2½	1645	152	....	13000	4025	P32x6	DP32x6	Own	6–3⅜x5	Own	U 4	No	Own	S½	H	5.7	37.6	6 ⅛ x3⅛x ⅛	C
71	GD	3	2085	144	....	17000	4650	P32x6	DP32x6	Own	6–3⅜x5	Own	U 4	2	Own	F	H	6.14	77.8	7x3¼x¼	C
72	GCS	3	2375	210	210	17000	5320	P32x6	DP32x6	Own	6–3⅜x5	Own	U 4	Op	Own	F	H	6.14	46.5	8x3¼x ⅛	C
73	4H, 4J, 4K	4	2875	170	190	20000	6280	B9.00/20	DB9.00/20	Own	6–4½x4¾	Own	U 4	....	Cla	SF	H	6.43	42.4	10x3x¼	C
74	Schacht 10HA	2–3	1570	156	195	.....	4072	B7.00/20	B7.00/20	Con 16C	6–3⅜x4⅜	Fu Wo	U 4	No	Tim 53200H	BF	H	5.83	31.2	6x3x¼	P
75	20HA	2½–4	2185	160	207	.....	4783	B8.25/20	DB8.25/20	Her WXB	6–3¾x4½	Fu MLU	U 4	No	Tim 54200H	BF	H	6.06	38.5	6x3x¼	P
76	25H	3–4½	2595	146	213	.....	5750	B8.25/20	DB8.25/20	Her WXC	6–4x4½	Fu MGU	U 4	No	Tim 56200H	BF	R	6.02	39.2	7x3x¼	P
77	28HA	4–5½	3050	146	227	.....	6600	B9.75/20	DB9.75/20	Her WXC	6–4x4½	Fu MGU	4	No	Tim 58200H	BF	R	6.83	43.8	7x3x¼	P
78	30HA	4½–6	3295	146	227	.....	6800	B9.75/20	DB9.75/20	Her WXC	6–4x4½	Fu MGU	4	No	Wis 8837AL	2F	R	7.14	46.4	7x3x¼	P
79	35HA	5–7	3725	146	227	.....	7400	B9.75/20	DB9.75/20	Her WXC2	6–4½x4½	Fu MGU	U 4	No	Own	2F	R	8.00	52.0	8½x3x ⅛	P
80	40H	5–7	4295	154	235	.....	7600	B9.75/20	DB9.75/20	Her YXC	6–4⅜x4¾	Fu VUOG	U 5	No	Own	2F	R	7.07	49.7	8½x3x ⅛	P
81	40HB	7–9	4695	154	235	.....	7750	B10.50/20	DB10.50/20	Her YXC	6–4⅜x4¾	Fu VUOG	U 5	No	Wis 1567AL	2F	R	7.07	49.7	8½x3x ⅛	P
82	66HA	8–11	5895	152	247	.....	9820	B10.50/24	DB10.50/24	Her RXC	6–4½x5¼	Fu VUOG	U 5	No	Wis 1567AL	2F	R	7.07	49.7	8½x3x ⅛	P
83	(T) TR, HA	10	3645	148	174	.....	6250	B9.75/20	DB9.75/20	Her YXC3	6–4⅝x4¾	Fu VUOG	U 5	No	Tim 58200	BF	R	7.8	55.1	7x3x¼	P
84	(T) TRDA	10	3895	148	174	.....	6450	B9.75/20	DB9.75/20	Her YXC3	6–4⅝x4¾	Fu VUOG	U 5	No	Own	2F	R	7.8	56.8	7x3x¼	P
85	Service—See Garford																				
86	Sterling FB30	1½	795	142	162	.....	3300	B6.50/20	B6.50/20	Con 25A	6–3¾x4	War T9	U 4	No	Tim	BF	H	5.66	37.6	6x2⅝x ⅛	C
87	FB45	2	1485	159	182	.....	4230	B6.50/20	DB6.50/20	Con 16C	6–3⅜x4⅝	War T9	U 4	No	Tim	BF	H	5.66	37.6	6x2⅝x ⅛	P
88	FB55	2–2½	1850	159	182	.....	4950	B7.00/20	DB7.00/20	Con 16C	6–3⅜x4⅝	BL 214	U 4	No	Tim	BF	H	5.83	36.3	6x2⅝x¼	P
89	FB65	2½	2450	174	204	.....	5550	B7.50/20	DB7.50/20	Wau 6MS	6–3¾x4¾	Own UC6	U 4	No	Tim	BF	H	6.16	39.1	10x3¼x¼	C
90	FB80	3–4	3080	174	204	.....	6480	B8.25/20	DB8.25/20	Wau 6MS	6–3¾x4¾	Own UC6	U 4	Op	Tim	BF	H	7.80	49.5	10x3¼x¼	C
91	FD80	3–4	3275	174	204	.....	6680	B8.25/20	DB8.25/20	Wau 6ML	6–4x4¾	Own UC7	U 5	Op	Wis	2	R	7.1	50.6	10x3¼x¼	C
92	FC90	4	4200	174	204	.....	7480	B9.00/20	DB9.00/20	Wau 6MK	6–4⅛x4¾	Own UC7	U 4	Op	Own	CD	R	8.66	61.7	10x3¼x¼	C
93	FW97, FD97	4–5	4225	192	222	.....	7955	P36x8	DP36x8	Wau 6MK	6–4½x4¾	Own UC2	U 4	Op	Tim	w/2	R	7.75	51.6	12x3¼x¼	C
94	FW97S, FD97S	4–5	4490	192	222	.....	8200	P36x8	DP36x8	Wau 6SRL	6–4⅝x5¼	Own UC2	U 4	Op	Tim	w/2	R	7.75	51.6	12x3¼x¼	C
95	FC100	5–5½	4950	192	222	.....	7750	P36x8	DP36x8	Wau 6MK	6–4½x4¾	Own UC2	U 4	Op	Own	CD	R	9.3	61.2	12x3¼x¼	C
96	FC105	5½	5150	192	222	.....	8000	B9.00/20	DB9.00/20	Wau 6SRS	6–4½x5¼	Own UC7	U 5	Op	Own	CD	R	8.66	61.7	12x3¼x¼	C
97	FW115, FD115	5–6	4805	192	222	.....	8750	P40x8	DP40x8	Wau 6SRL	6–4⅝x5¼	Own UC2	U 4	Op	Tim	w/2	R	8.20	54.6	12x3¼x¼	C
98	FC107	5–6	5200	192	222	.....	8200	P36x8	DP36x8	Wau 6SRL	6–4⅝x5¼	Own UC2	U 4	Op	Own	CD	R	8.20	54.6	12x3¼x¼	C
99	FC120	6–7	5350	192	222	.....	8550	P40x8	DP40x8	Wau 6MK	6–4½x4¾	Own UC2	U 4	Op	Own	CD	R	9.3	62.2	12x3¼x¼	C
100	FC120S	7½	5650	192	222	.....	8400	B9.75/20	DB9.75/20	Wau 6SRL	6–4⅝x5¼	Own UC2	U 4	Op	Own	CD	R	8.66	61.7	12x3¼x¼	C
101	FW140, FD140	7–8	6070	192	222	.....	10050	P40x8	DP42x9	Wau 8RL	6–4⅝x5½	Own UC2	U 4	Op	Tim	w/2	R	10.0	66.6	15x3¼x¼	C
102	FC135	7–8	5825	192	222	.....	8900	P40x8	DP40x8	Wau 8RL	6–4⅝x5½	Own UC2	U 4	Op	Own	CD	R	9.3	62.2	15x3¼x¼	C
103	FC140	8–8½	6500	200	230	.....	9350	P40x8	DP40x8	Wau HB	6–4¼x5¾	Own UC2	U 4	Op	Own	CD	R	8.58	58.2	15x3¼x¼	C
104	FC145	8–8½	6925	200	230	.....	10100	P40x8	DP40x8	Wau AB	6–4½x5¾	Own UC8	U 4	Op	Own	CD	R	9.4	58.9	15x3¼x¼	C
105	FW170, FD170	9½x10½	6070	200	230	.....	10550	P40x8	DP44x10	Wau AB	6–4½x5¾	Own UC8	U 4	Op	Tim	w/2	R	10.0	62.7	15x3¼x3¼	C
106	FC170	9½x10½	7595	200	230	.....	10550	P40x8	DP42x9	Wau RB	6–5x5¾	Own UC8	U 4	Op	Own	CD	R	9.4	58.9	15x3¼x¼	C
107	Stewart 30	1	695	130	160	.....	2977	B6.50/20	B6.50/20	Lyc AFE	4–3¼x4½	War	U 4	No	Cla	SF	H	5.6	35.8	6x2¼x ⅛	C
108	30X	1	795	130	160	6305	3018	B6.50/20	B6.50/20	Lyc WTG	6–3x4¾	WG T9	U 4	No	Cla	SF	H	6.38	40.8	6¾x2¾x ⅛	T
109	40XA	1½	995	145	176	.....	3460	B6.50/20	DB6.50/20	Lyc SA	6–3¼x4¾	War	U 4	No	Cla	SF	H	5.6	35.8	7½x2¼x ⅛	C
110	50X	2	1195	145	176	.....	4015	B6.50/20	DB6.50/20	Lyc SB	6–3⅝x4½	War	U 4	No	Cla	SF	H	6.37	22.0	7½x	C
111	(continued) 29XS	2	1695	145	190	.....	4960	B.700/20	DB7.00/20	Lyc ASD	6–3¾x4½	Ful	U 4	No	Cla	SF	R	6.37	44.4	7½x2¾x ⅛	C

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELEC-TRICAL: Ignition System Make	ELEC-TRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location and Type	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Type, Location	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	SPRINGS: Auxiliary Type
1	248	5.1	145	25.4	61–2600	L	G	C	7–2¼	10⅜	FP	Ha	Str	V	NE	NE	D.Ow	Ow	Spi	Own BL	Ge	L41H	302	P	FX	109	64⅛	33¼	40½x2½	52¾x2¼	N
2	309	4.7	183	31.5	75–2500	L	G	A	7–2⅝	10⅜	FP	Ha	Str	V	NE	NE	D.Ow	Ow	Spi	Own BG	Own	O41MV	415	a	FX	96	54½	33¼	42x2½	54x3	
3	509	4.7	183	31.5	75–2500	L	G	C	7–2⅝	10⅜	FP	Ha	Str	V	NE	NE	P.Ow	Ow	Spi	Own BG	Ha	O41MV	427	a	FD	132	....	....	44x2½	54x3	½
4	283	4.4	176	28.9	63–2100	L	G	C	3–3	8½	PS	Ow	Str	V	NE	NE	D.Ow	Ow	Spi	Own AB	Own	O41MV	471	a	FX	120	73	33¼	42¼x3	48x3	N
5	283	4.4	176	28.9	63–2100	L	G	C	3–3	8½	PS	Ow	Str	V	NE	NE	D.Ow	Ow	Spi	Own AB	Own	O41MV	471	a	FX	120	73	33¼	42¼x3	56¼x3½	N
6	309	4.7	183	31.5	75–2500	L	G	C	7–2⅝	10⅜	FP	Ha	Str	V	NE	NE	D.Ow	Ow	Spi	Own AB	Own	O41MV	471	a	FX	120	73	33¼	42¼x3	48x3	N
7	509	4.7	183	31.5	75–2500	L	G	C	7–2⅝	10⅜	FP	Ha	Str	V	NE	NE	D.Ow	Ow	Spi	Own AB	Own	O41MV	471	a	FX	120	73	33¼	42¼x3	56¼x3½	N
8	414	4.5	261	38.4	94–2400	L	G	C	7–3	12¼	FP	Ha	Str	V	NE	NE	P.Ow	Ow	Spi	Own BC	Own	O41MV	610	a	FX	120	73	33¼	43½x3	56¼x3½	N
9	525	4.8	350	48.6	125–2300	L	G	C	4–3½	10½	PS	Ow	Str	V	RB	NE	P.Ow	Ow	Cle	Own AK	Own	O41MV	618	a	FD	120	79	33¼	50x3½	59¼x4	¼
10	471	3.9	320	40	75–1800	L	G	C	3–3	10½	PS	Ow	Str	V	RB	....	P.Ow	Ow	Spi	Own AK	Own	O41MV	492	a	JX	132	93⅛	37¼	48x3½	52x4	½
11	471	3.9	320	40	75–1800	L	G	C	3–3	10½	PS	Ow	Str	V	RB	....	P.Ow	Ow	Spi	Own AK	Own	O41MV	492	a	FX	132	93⅛	37¼	48x3½	56x4	½
12	525	4.8	350	48.6	125–2300	L	G	C	4–3½	10½	PS	Ow	Str	V	RB	RB	P.Ow	Ow	Spi	Own AK	Ha	O41MV	561	a	FD	132	93	37½	48¼x3½	56¼x4	¼
13	471	3.9	320	40	75–1800	L	G	C	3–3	10½	PS	Ow	Str	G	RB	....	P.Ow	Ow	Spi	Own AC	Own	OJXM	194	C	2I	156	104	37½	46x3¼	52x4	½
14	525	4.8	350	48.6	125–2300	L	G	C	4–3½	10½	PS	Ow	Str	V	RB	NE	P.Ow	Ow	Spi	Own AK	Ha	O41MV	755	C	JX	156	105	37½	48x3½	52x4	½
15	706	4.8	427	70	138–1900	L	G	S	4–3½	11⅛	PS	Ow	Str	V	RB	NE	P.Ow	Ow	Spi	Own AC	Own	O21MV	284	C	JX	180	108⅜	37½	46x3½	52x4	½
16	383	4.7	....	43.3	92–2400	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own	Ros	W2/4IA	812	a	FD	Opt	Opt	34	40x3	50x3	..
17	480	4.4	....	51.2	103–2200	L	G	C	7–3	15	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own	Ros	W2/4IA	918	a	FD	Opt	Opt	34	44x3	54x3½	..
18	529	4.9	....	51.2	115–2200	L	G	C	7–3	15	PC	Ha	Zen	M	DR	DR	D.Fu	Yo	Blo	Own	Ros	W2/4IA	918	a	FD	Opt	Opt	34	44x3	54x3½	..
19	707	4.5	....	30.0	150–2000	L	G	A	7–3½	17	PC	No	Zen	M	DR	DR	dp.BL	Yo	Blo	Own	Ros	Ws2/4I A	974	a	2FD	Opt	Opt	34	52x4	54x4	..
20	855	4.5	....	72.6	180–2000	L	G	A	7–3½	17	PC	No	Zen	M	DR	DR	dp.BL	Yo	Blo	Own	Ros	Ws2/4I A	974	a	2FD	Opt	Opt	34	52x4	54x4	..
21	248	5.0	144	27.3	70–3200	L	C	C	7–2⅝	10⅛	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 30000H	Ros	L41H	270	a	TD	132	78	34	40x2½	54x3	½
22	248	5.0	144	27.3	70–3200	L	C	C	7–2⅝	10⅛	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 31000H	Ros	L41H	315	a	TD	132	78	34	40x2½	54x3	½
23	339	4.7	212	38.4	76–2400	L	G	C	7–2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L41H	374	a	TD	156	101	34	40x2½	54x3	½
24	339	4.7	212	38.4	76–2400	L	G	C	7–2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L41H	405	a	FD	156	99⅝	34	41½x2½	54x3	½
25	383	4.4	262	43.3	92–2400	L	G	A	7–2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 33020H	Ros	L41H	405	a	FD	156	99⅝	34	40x2½	54x3½	½
26	383	4.4	262	43.3	92–2400	L	G	A	7–2⅝	13¼	PC	No	Zen	M	AL	AL	P.BL	Lo	Cle	Tim 35120H	Ros	L41H	494	a	FD	156	99⅝	34	40x2½	54x3½	½
27	501	4.9	330	48.6	110–2200	L	G	A	7–3	12½	PC	Mo	Zen	M	AL	AL	P.BL	Lo	Cle	Tim26450TW	Ros	Ws4IA	620	a	FD	168	112¼	34	42x3	56x3½	½
28	222	4.9	142	27.3	68–2600	L	G	A	4–2¾	7⅝	FP	Ha	Zen	M	AL	AL	P.BL	Mo	Pet	Tim 11703H	Ros	L41H	229	P	ID	108	72	34	40x2½	50x3	N
29	255	5.1	170	27.3	68–2600	L	G	A	4–2¾	7⅝	FP	Ha	Zen	M	AL	AL	P.BL	Mo	Pet	Tim 12703H	Ros	L41H	240	G	ID	120	84	34	40x2½	50x3	..
30	462	4.6	240	45.9	100–2400	L	G	A	7–3	13½	FP	Wa	Zen	M	AL	AL	P.BL	Mo	Pet	Tim 14703H	Ros	L41H	400	G	ID	132	96	34	40x2½	50x3	½
31	462	4.6	300	45.9	100–2400	L	G	A	7–3	13½	FP	Wa	Zen	M	AL	AL	D.BL	Mo	Pet	Tim 15733	Ros	2M	520	G	ID	132	96	34	40x3	50x3	½
32	517	4.5	335	48.6	110–2400	L	G	A	7–3	13¾	FP	Wa	Zen	M	AL	AL	D.BL	Mo	Pet	Tim 17300	Ros	2M	615	G	ID	132	96	34	40x3	50x4	½
33	420	5.2	310	45	140–2800	L	G	C	5–2⅝	12	FP	Ha	Zen	M	AL	AL	D.BL	Mo	Pet	Tim 26450H	Ros	L41H	690	G	....	180	120	33	44x3	56x4	½
34	241	4.5	143	27.3	57–2500	L	G	C	4–2⅝	8⅛	FP	Bu	Str	V	AL	AL	D.Fu	Ch	Blo	Tim 14703H	Ros	L41H	452	a	TI	128	88	34	40x2¼	48x3	N
35	340	4.2	212	38.4	82–2400	H	C	N	7–2⅝	13¼	FP	Co	Str	V	AL	AL	D.Fu	Mo	Blo	Tim 33000H	Ros	L41H	660	a	TD	141	87	34	43x2½	48x3	N
36	340	4.2	236	40.8	88–2400	H	C	N	7–2⅝	13¼	FP	Co	Str	V	AL	AL	D.Fu	Ch	Blo	Tim 15733H	Ros	L41H	768	a	RI	134	103½	34	45x3	54x3	N
37	339	4.7	210	38.4	70–2000	L	G	C	7–2⅝	13¼	PC	Ha	Str	M	RB	LN	D.BL	Mo	Blo	Own	Ha	Own	142	a	2I	113¼	83⅛	34	44x2½	50x3	½
38	360	4.7	230	40.8	73–2000	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	RB	RB	D.BL	Mo	Blo	Own	Ros	Own	142	a	2I	113¼	83⅛	34	44x2½	50x3	½
39	428	4.4	278	45.9	90–2000	L	G	C	7–3	15	PC	Ha	Zen	M	RB	LN	D.BL	Mo	Blo	Own	Ros	Own	142	a	2I	113¼	83⅛	34	44x2½	50x3	½
40	501	4.9	330	48.6	106–2000	L	G	C	7–3	15	PC	Ha	Zen	M	NE	LN	D.BL	Mo	Blo	Own	Ros	Own	142	a	2I	113¼	83⅛	34	44x2½	50x3	½
41	501	4.9	330	48.6	106–2000	L	G	C	7–3	15	PC	Ha	Zen	M	NE	LN	D.BL	Mo	Blo	Own	Ros	Own	142	a	2I	113¼	83⅛	34	44x2½	50x3	½
42	529	4.9	....	51.2	112–2000	L	G	C	7–3	15	PC	Ha	Zen	M	RB	LN	D.BL	Mo	Blo	Own	Ros	B41MV	630	a	TX	113¼	83⅛	34	44x3	50x4	½
43	385	5.0	274	39.2	125–2800	L	C	S	9–2⅝	14½	CC	Ha	Str	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B41M	399	D	CD	116¾	62½	34	38x2½	56x3	½
44	361	4.7	229	40.3	77–2400	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B41M	399	D	TD	113½	59½	34	38x2¼	56x3	½
45	298	4.7	190	33.7	70–2600	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B41M	399	D	TD	113½	59½	34	38x2¼	56x3	½
46	361	4.7	229	40.3	77–2400	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 14706	Ha	B41M	399	D	CD	143½	89½	34	38x2¼	56x3	½
47	361	4.7	229	40.3	77–2400	L	G	C	7–2⅝	13¼	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B41A	473	D	CD	119½	65	34	41x2½	56x3	½
48	428	4.6	280	46	94–2200	L	G	A	7–3	15	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B41A	473	D	CD	118¼	63¾	34	41x2½	56x3	½
49	501	4.6	330	48.6	110–2200	L	G	A	7–3	12½	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 15733	Ha	B41A	473	D	CD	118¼	63¾	34	41x2½	56x3	½
50	501	4.6	330	48.6	110–2200	L	G	A	7–3	12½	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 26050	Ha	T4IA	618	D	CD	132¾	78¼	34	41x3	56x3½	½
51	611	4.5	410	54.1	130–2000	L	G	A	7–3½	16⅜	PC	Ha	Str	M	DR	DR	P.Lo	Lo	Spi	Tim 26050	Ros	T4IA	618	D	TX	117	62½	34	41x3	56x3½	½
52	501	4.6	330	48.6	110–2200	L	G	A	7–3	12½	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 26050	Ha	TO4IA	720	D	CD	132¾	78¼	34	41x3	56x4	½
53	611	4.5	410	54.1	130–2000	L	G	A	7–3½	16⅜	PC	Ha	Str	M	DR	DR	P.Lo	Lo	Spi	Tim 26050	Ros	TO4IA	720	D	TX	127	72½	34	41x3	56x4	½
54	479	4.6	318	51.3	104–2200	L	G	A	7–3	15	PC	Ha	Zen	M	DR	DR	P.Lo	Lo	Cle	Tim 26050	Ha	TO4IA	720	D	CD	132¾	78¼	34	41x3	56x4	½
55	611	4.5	410	54.1	130–2000	L	G	A	7–3½	16⅜	PC	Ha	Str	M	DR	DR	P.Lo	Lo	Spi	Tim 27050	Ros	TO4IA	720	D	TX	137¾	82½	34	41x3	56x4	½
56	779	4.5	510	66.1	150–1800	L	G	A	7–3½	16⅜	PC	Ha	Str	M	DR	DR	P.Lo	Lo	Spi	Tim 27050	Ros	TO4IA	720	D	TX	137	102½	34	41x3	56x4	½
57	214	5.0	132	27.3	52–2200	L	G	A	7–2¼	9⅛	PC	No	Str	V	AL	AL	P.BB	Lo	Blo	Col 5540	Ha	L41H	297	P	FX	106¾	63	34	36x2¼	48x2½	N
58	241	4.5	143	27.3	53–2200	L	G	C	4–2⅝	....	PC	No	Zen	V	AL	AL	P.BL	Lo	Blo	Col 5530	Ha	L41H	297	P	FX	103½	63	34	36x2¼	48x2½	½
59	332	4.5	202	38.7	64–2100	L	G	C	4–2½	9	PC	No	Zen	V	AL	AL	D.Fu	Lo	Blo	Tim 35000H	Ha	L41H	394	P	FX	144	90	34	40x2¼	50x3	½
60	331	4.5	202	33.7	64–2100	L	G	C	4–2½	9	PC	No	Zen	V	AL	AL	D.BL	Lo	Blo	Tim 35000H	Ha	L41H	584	P	FX	144	82	34	40x2¼	54x3	½
61	411	4.5	270	40.8	83–2100	L	G	C	4–2½	9⅞	PC	Bu	Zen	V	AL	AL	Fu	Lo	Blo	Tim 35000H	Ha	L41H	584	P	FX	156	97½	34	42x2¼	54x3	½
62	420	4.2	268	45.9	100–2200	L	C	C	7–2¾	12⅛	PC	No	Str	V	AL	AL	D.Fu	Lo	Blo	Tim 1660W	Ha	4IA	447	D	FX	216	148	34	42x3	60x4	½
63	611	....	400	54.	126–2000	L	G	A	7–3½	16⅜	PC	Mo	Zen	M	AL	LN	P.Lo	Mo	Spi	.....	Ros	C41A	529	DP	FX	168	104½	34	44x3½	56x4	½
64	638	4.3	415	54.1	118–1850	L	G	C	4–3	10⅛	PC	Ha	Zen	M	AL	LN	P.BL	Mo	Blo	Tim 27450	Ha	L41H	480	D	FX	192	134	34	42x3	56x4	½
65	779	....	510	66.1	164–2000	L	G	A	7–3½	16⅜	PC	Mo	Zen	M	AL	LN	P.Lo	Mo	Spi	.....	Ros	C41A	637	DP	FX	132	82½	34	44x3	56x5	½
66	205	4.8	136	23.3	51–2500	L	G	B	5–3	8⅛	FP	No	Zen	M	DR	DR	P.Lo	Pe	Cle	Own	Ros	L41H	230	P	TX	102⅛	60⅛	34	40x2	50x2½	..
67	215	5.0	136	27.3	61–3000	L	G	B	7–2½	10⅛	FP	No	Zen	M	DR	DR	P.Lo	Pe	Cle	Own	Ros	L41H	230	P	TX	102⅛	60⅛	34	40x2	50x2½	..
68	268	5.3	170	27.3	85–3200	L	C	A	7–2⅛	12	CC	No	Sch	V	DR	DR	dp.Lo	Ow	Cle	Own	Ros	L41H	289	P	TX	97⅜	52¼	40⅛	38x2	50x2½	N
69	268	4.7	160	27.3	70–2800	L	C	A	7–2⅛	12	CC	No	Sch	V	DR	DR	P.BL	Ow	Cle	Own	Ros	L41H	289	P	TX	97⅜	52¼	40⅛	38x2¼	50x2½	N
70	268	4.7	160	27.3	70–2800	L	C	A	7–2⅛	12	CC	No	Sch	V	DR	DR	P.BL	Mc	Cle	Own	Ros	L41H	289	P	TX	111⅜	67¼	40⅝	38x2¼	50x2½	N
71	268	4.7	160	27.3	70–2800	L	C	A	7–2⅛	12	CC	No	Sch	V	DR	DR	P.BL	Mc	Cle	Own	Ros	L41H	344	P	TX	86⅛	59⅛	40½	38x2½	50x3	N
72	268	4.7	160	27.3	70–2800	L	C	A	7–2⅛	12	CC	No	Sch	V	DR	DR	P.BL	Mc	Cle	Own	Ros	L41H	344	P	TX	.....	.....	40½	38x2½	54x3	N
73	381	4.9	245	40.8	101–2600	L	G	B	7–3	12⅞	FP	No	Sch	M	DR	DR	dp.Lo	Mc	Cle	Own	Ros	L41HV	390	a	FD	143	83	34	44x3	56x3½	..
74	248	5.1	150	27.3	65–2600	L	G	C	7–2⅝	10⅜	FP	No	Zen	G	DR	DR	P.BB	Yo	Spi	Tim 30000H	Ros	L41H	380	G	TX	Opt	Opt	31½	40x2½	50x3	½
75	298	4.7	192	33.7	66–2200	L	G	C	7–2⅝	13¼	PC	No	Zen	G	AL	AL	D.BB	Yo	Spi	Tim 12703H	Ros	L41HV	452	G	TX	Opt	Opt	31½	40x2½	50x3	½
76	339	4.7	225	38.4	73–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	G	AL	AL	D.Fu	Yo	Spi	Tim 33020H	Ros	L41HV	578	G	TX	Opt	Opt	31½	40x2½	50x3	½
77	339	4.7	225	38.4	73–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	G	AL	AL	D.Fu	Yo	Spi	Tim 33020H	Ros	L41HV	658	G	TX	Opt	Opt	31½	40x2½	50x3	½
78	339	4.7	225	38.4	73–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	G	AL	AL	D.Fu	Yo	Spi	Tim 33020H	Ros	L41HV	658	G	TX	Opt	Opt	31½	40x2½	50x3	½
79	360	4.7	238	40.3	80–2200	L	G	C	7–2⅝	13¼	PC	Mo	Zen	G	AL	AL	D.Fu	Yo	Spi	Shu 5572	Ros	L41HV	768	H	TD	Opt	Opt	31½	40x2½	50x3	½
80	428	4.4	280	45.9	93–2200	L	G	C	7–3	15	PC	Mo	Zen	G	AL	AL	D.Fu	Yo	Spi	Shu 5572	Ros	L41H	768	H	TD	Opt	Opt	31½	40x2½	50x3	½
81	428	4.4	280	45.9	93–2200	L	G	C	7–3	15	PC	Mo	Zen	G	AL	AL	D.Fu	Yo	Spi	Shu 637	Ros	L41HV	893	G	TD	Opt	Opt	31½	40x2½	50x3	½
82	528	4.9	355	51.2	115–2200	L	G	C	7–3	15	PC	Mo	Zen	G	AL	AL	D.Fu	Yo	Spi	Shu 638	Own	Ws	847	G	TD	Opt	Opt	31½	42x3	60x3½	½
83	478	4.4	318	51.2	103–2200	L	G	C	7–3	15	PC	Mo	Zen	G	AL	AL	D.Fu	Yo	Spi	Tim 14703	Ros	L41H	768	G	TD	Opt	Opt	31½	40x2½	50x3	½
84	478	4.4	318	51.2	103–2200	L	G	C	7–3	15	PC	Mo	Zen	G	AL	AL	D.Fu	Yo	Spi	Tim 14703	Ros	L41H	893	H	TD	Opt	Opt	31½	40x2½	50x3	½
85																															
86	214	5.0	137	28.0	72–3300	L	C	A	4–2⅜	6¾	CC	....	Zen	M	DR	DR	P.Lo	Pe	MM	Tim	Ros	L41H	269	P	TX	96	57	34	38x2¼	50x2½	N
87	248	5.0	150	28.0	66–3000	L	C	C	7–2⅜	9⅛	CC	....	Zen	M	DR	DR	P.BB	Pe	Spi	Tim	Ros	L41H	269	P	TX	116	76	34	42x2½	54x2½	½
88	248	5.0	150	28.0	66–3000	L	C	C	7–2⅜	9⅛	CC	....	Zen	M	DR	DR	D.BL	Pe	Spi	Tim	Ros	L41HV	282	G	TX	116	76	34	42x2½	54x3	½
89	315	4.6	200	33.7	72–2500	L	G	C	7–2⅝	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	L41HV	330	G	TX	136	91	34	42x2½	54x3	½
90	355	4.6	200	33.7	72–2500	L	G	C	7–2⅝	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	L41HV	392	G	TX	136	91	34	42x2½	54x3	½
91	358	4.4	230	38.4	80–2500	L	G	C	7–2⅝	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ha	O21MV	466	c	JX	136	91	34	42x2½	54x3	½
92	381	4.4	240	40.8	85–2500	L	G	C	7–2⅜	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	L41HV	664	G	CX	172	108	34	48x3	54x3	½
93	381	4.4	240	40.8	85–2500	L	G	C	7–2⅜	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	L41HV	664	G	CX	172	108	34	48x3	54x3	½
94	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	O21MV	576	G	JX	172	108	34	48x3	54x3	½
95	381	4.4	240	40.8	85–2500	L	G	C	7–2⅜	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	O21MV	576	G	JX	172	108	34	48x3	54x3	½
96	411	4.6	260	40.8	91–2400	L	G	A	7–3	13⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	O21MV	562	c	JX	172	108	34	48x3	54x3	½
97	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	L41HV	664	G	CX	172	108	34	48x3	54x3	½
98	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	O21MV	576	G	JX	172	108	34	48x3	54x3	½
99	381	4.4	240	40.8	85–2500	L	G	C	7–2⅜	12½	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	O21MV	500	G	JX	172	108	34	48x3	54x3	½
100	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	O21MV	658	c	JX	172	108	34	48x3	54x3	½
101	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	Ws4IA	690	G	CX	172	108	34	48x3	60x4	½
102	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	O21MV	500	f	JX	172	108	34	48x3	54x3	½
103	489	4.5	295	43.4	90–2000	L	G	C	4–3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	O21MV	666	c	JX	168	107	34	48x3	54x3	½
104	549	4.5	330	48.6	99–2000	L	G	C	4–3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	Ws4IA	690	G	CX	163	107	34	48x3	60x4	½
105	549	4.5	330	48.6	99–2000	L	G	C	4–3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	O21MV	666	c	JX	168	107	34	48x3	54x3	½
106	677	4.4	440	60.0	125–2000	L	G	A	4–3½	11⅜	CC	Ha	Zen	M	DR	DR	D.Own	Mo	Spi	Tim	Ros	O21MV	666	c	JX	168	107	34	48x3	54x3	½
107	199	4.8	136	22.5	50–2600	L	G	C	4–2¼	7¼	PC	No	Str	V	DR	DR	P.BB	Fe	Spi	Sal	Ros	B41M	257	E	TX	77⅛	40⅛	32	38x2¼	50x2½	N
108	201	5.5	141	21.0	60–2600	L	G	C	4–2¼	7	PC	No	Str	V	DR	DR	P.Lo	Pe	Spi	Sal	Ros	L41H	257	E	TX	126	70	34	38x2½	54x2½	N
109	224	4.8	142	25.3	61–2600	L	G	C	4–2¼	7¼	PC	No	Str	V	DR	DR	P.BB	Fe	Spi	Sal	Ros	B41M	257	E	TX	77⅛	40⅛	32	38½x2¼	50x2½	..
110	242	5.0	162	27.3	65–2800	L	G	C	4–2¼	9½	CC	No	Str	M	DR	DR	P.BB	Fe	Spi	Sal	Ros	B41M	257	E	TF	114¾	63¾	32	38½x2¾	50x2½	..
111	299	5.0	193	33.8	85–2750	L	G	C	4–2½	9⅛	FP	No	Str	G	DR	DR	D.Fu	Fe	Spi	Cla	Ros	B41M	308	E	TX	114¾	63¾	32	38x2¼	50x3	½

Line Number	MAKE AND MODEL	Wheels Driven—6-Wheelers	GENERAL (See Keynote) Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	TIRE SIZE Front	Rear	MAJOR UNITS ENGINE Make and Model	ENGINE No. of Cylinders Bore and Stroke	TRANSMISSION Make and Model	TRANSMISSION Location and Forward Speeds	TRANSMISSION Aux. Location and Speeds	REAR AXLE Make and Model	REAR AXLE Gear and Type	REAR AXLE Drive and Torque	REAR AXLE GEAR RATIOS In High	REAR AXLE GEAR RATIOS In Low	FRAME Side Rail Dimensions	FRAME Type
1	Stewart....32X		2½	1990	165	220	.....	5260	B7.00/20	DB7.00/20	Lyc ASD	6-3¾x4½	Fu	U 4	No	Cla	SF	R	6.37	44.4	7½x2¾x½	C
2	(concluded)..18X		2½	2690	165	220	.....	6250	B7.50/20	DB7.50/20	Lyc TS	6-3⅞x5	Fu	U 4	No	Tim	WF	R	7.25	47.5	7½x2¾x¼	C
3	58-8		2½	2390	170	226	.....	5970	B7.50/20	DB7.50/20	Lyc HFA	8-3⅜x4½	Fu	U 4	No	Cla	SF	H	7.25	47.0	9x	C
4	.....36X		3	2990	165	220	.....	6500	B8.25/20	DB8.25/20	Lyc TS	6-3⅞x5	BL	U 4	A 3	Tim	WF	R	7.8	47.5	9x	C
5	48-8		3	2990	170	241	.....	6750	B8.25/20	DB8.25/20	Lyc AEC	8-3¾x4¾	BL	U 4	...	Cla	S	F	7.12	50.1	9x	C
6	.....19X		3½	3690	165	235	.....	7110	B9.00/20	DB9.00/20	Lyc TS	6-3⅞x5	Fu	U 4	A 3	Tim	WF	R	7.25	127.	9x2¾x¼	C
7	38-6		3½	3990	170	241	.....	7600	B9.00/20	DB9.00/20	Wau 6SRL	6-4⅜x5½	BL	U 4	A 3	Tim	DF	..	7.3	147.	9x	C
8	38-8		3½	3990	170	241	.....	7600	B9.00/20	DB9.00/20	Lyc AE	8-3¾x4¾	BL	U 4	A 3	Tim	DF	..	7.3	147.	9x	C
9	.....31X		5	5190	165	235	.....	9340	B9.75/20	DB9.75/20	Wau 6SRK	6-4⅝x5⅛	BL	U 4	A 3	Tim	WF	R	8.2	15.1	9	C
10	.....27XS		7	6190	165	235	.....	10300	B10.50/24	DB10.50/24	Wau 6SRK	6-4⅝x5½	BL	U 4	A 4	Tim	WF	R	6.56	93.8	9	C
11	Studebaker.....S1		½	595	114	114	.....	2330	B5.25/19	B5.25/19	Own GL	8-3⅜x4½	WG	U 3	No	Own	SF	H	4.73	25.5	6½x2¼x¼	C
12	.....S21		1½	695	130	165	.....	2950	B6.00/20	P32x6	Own T1	6-3¼x4⅝	War T9	U 4	No	Cla B373	SF	H	5.66	35.8	6x2¾x¼	C
13	.....S41		2	895	141	165	.....	3770	B6.50/20	DB6.50/20	Own T2	6-3¼x4⅝	War T9	U 4	No	Tim 54200A1	SF	H	6.8	43.5	7x2¾x¼	C
14	120		3	1350	141	183	.....	4700	B6.50/20	DP32x6	Own T2	6-3¼x4⅝	War T9	U 4	A 2	Tim	SF	H	6.8	77.1	8x2¾x¼	C
15	Water.....FN		2½	4500	120	...	14000	6500	B9.00/20	B9.00/20	Own 6MK	6-4½x4¾	Own FN	U 5	No	Own FN	2R	H	7.0	70.0	7x2¾x¼	P
16	.....FM		3½–4	5500	120	144	18000	7500	B9.00/20	DB9.00/20	Own 6SRL	6-4⅜x5½	Own FM	U 5	No	Own FM	2D	H	6.00	60.0	12x2¾x¼	P
17	.....FKD		3½–5	6300	118	136	21000	8000	B9.00/24	DB9.00/24	Own 6SRL	6-4⅜x5½	Own FK	U 5	No	Own FK	2D	H	8.50	85.0	11x3x¼	P
18	.....FCS		5–7	6900	136	160	26000	9000	B9.75/24	DB9.75/24	Own 6SRL	6-4½x5⅝	Own FK	U 5	No	Own FH	2D	H	8.5	85.0	13x3x¼	C
19	.....FBS		5–7	7900	136	160	26000	9000	B9.75/24	DB9.75/24	Own 6RB	6-5x5¾	Own FH	U 5	No	Own FH	2D	H	8.5	85.0	13x3x¼	P
20	.....FBRS		7–9	8300	136	160	31000	10000	B10.50/24	DB10.50/24	Own 6RB	6-5x5¾	Own FH	U 5	No	Own FHR	2D	H	8.5	85.0	13x3x¼	P
21	Ward LaFr...25R14		3	2975	Op	Op	14000	6200	B8.25/20	B8.25/20	Wau 6ML	6-4x4¾	BL	U 4	No	Tim 56200H	SF	R	Op	Op	12x3½x¼	P
22	.....25B14		3	2975	Op	Op	14000	6200	B8.25/20	B8.25/20	Own	8-3¾x4½	BL	U 4	No	Tim 56200H	SF	R	Op	Op	12x3½x¼	P
23	.....30B18		4	3585	197	209	18000	7000	B9.00/20	DB9.00/20	Own	8-3⅜x4½	BL	A 4	Op	Tim 65200H	2F	R	Op	Op	12x3½x	..
24	.....30R18		4	3585	197	209	18000	7000	B9.00/20	DB9.00/20	Wau 6MK	6-4½x4¾	BL	A 4	Op	Tim 65200H	2F	R	Op	Op	12x3½x	..
25	.....35R		5	4675	Op	Op	23000	8700	B9 75/20	DB9.75/20	Wau SRL	6-4⅜x5½	BL	A 4	Op	Tim 65720H	WF	R	Op	Op	14x3½x	..
26	.....35B		5	4675	Op	Op	23000	8700	B9.75/20	DB9.75/20	Lyc	8-3¾x4¾	BL	A 4	Op	Tim 65720H	WF	R	Op	Op	14x3½x¼	.....
27	.....75RW		7½	6900	Op	Op	28000	10500	B10.50/20	DB10.50/20	Wau RB	6-5x5¾	BL714	U 4	A 3	Tim 66720W	WF	R	Op	Op	14x3½x¼	.....
28	.....100RW		10	7350	Op	Op	32000	11500	B10.50/24	DB10 50/24	Wau RB	6-5x5¾	BL 714	U 4	A 3	Tim 68720W	WF	R	Op	Op	14x3½x¼	.....
29	White.....60K		1¼–1½	1850	112	...	.....	3905	B7.00/20	B7 00/20	Own 2A	6-3½x4½	Own 3BC	U 3	No	Own 4C	S½	H	5.8	17.6	15x5x	.....
30	601		1¼–1½	1850	138	157	.....	4210	B7.50/20	B7.50/20	Own 2A	6-3½x4½	Own 5B	U 4	No	Own 4C	S½	H	4.73	19.5	6x2⅝x	.....
31	611		1¼–1½	1700	138	157	.....	4420	B7.50/20	B7.50/20	Own GRCB	4-4x5¾	Own 5B	U 4	No	Own 4C	S½	H	4.73	19.5	6x2⅝x	C
32	.....(12) 602		1¼–2	2050	138	157	.....	4500	B7.00/20	DB7.00/20	Own 2A	6-3½x4½	Own 5B	U 4	No	Own 4CB	S½	H	4.73	19.5	6x2⅝x	C
33	162		1½–2	1900	138	157	.....	4710	B7 00/20	DB7.00/20	Own GRCB	4-4x5¾	Own 8B	U 4	No	Own 4CB	S½	H	4.73	19.5	6x2⅝x	C
34	611		2–2½	2450	148	196	.....	4960	B7.00/20	DB7.00/20	Own 4A	6-3¾x4½	Own 5B	U 4	No	Own 7C	S½	H	5.67	23.4	6½x3	C
35	211		2–2½	2300	148	198	.....	5170	B7.00/20	DB7.00/20	Own GRCB	4-4x5¾	Own 8B	U 4	No	Own 7C	S½	H	5.67	23.4	6½x3	C
36	56		2–2½	3125	165	175	.....	5276	S36x4	S36x7	Own GRC	4-4x5¾	OwnGRBB	U 4	No	Own 3C	S½	H	6.33	26.2	7x3x	C
37	612		2½–3	2800	148	196	.....	5295	B7.50/20	DB7.50/20	Own 4A	6-3¾x4½	Own 5B	U 4	No	Own 7CB	S½	H	5.67	23.4	6½x3	C
38	212		2½–3	2650	148	198	.....	5500	B7.50/20	DB7.50/20	Own GRCB	4-4x5¾	Own 8B	U 4	No	Own 7CB	S½	H	5.67	23.4	6½x3	C
39	620		2½x3	4350	157	195	.....	7430	B8.25/20	DB8.25/20	Own 3AD	6-4x5¼	Own 4B	U 4	No	Own 14C	SF	R	6.38	41.8	7	C
40	.....51A		2½–4	3750	170	190	.....	6438	S36x5°	S36x8°	Own GRB	4-4¼x5¾	OwnGRBA	U 4	No	Own 51A	S½	R	7.14	35.6	8x3x	C
41	621		3–4	4650	157	195	.....	7945	B9.00/20	DB9.00/20	Own 3AD	6-4x5¼	Own 4B	U 4	No	Own 10C	SF	R	6.33	41.4	7	C
42	630		3–4½	5000	168	215	.....	8500	B9.00/20	DB9.00/20	Own 3AD	6-4x5¼	Own 4B	U 4	No	Own 10C	SF	R	6.33	41.4	8x3x	C
43	640		3–4½	6100	180	214	.....	9200	B9.00/20	DB9.00/20	Own 1AB	6-4⅜x5¾	Own 7B	U 4	No	Own 10C	SF	R	5.18	33.9	8½x3	C
44	58		3–5	4400	180	195	.....	7797	S36x5	S36x5	Own GRB	4-4¼x5¾	Own 4B	U 4	No	Own 2C	2F	R	7.6	49.7	8½x3	C
45	55		5	4650	174	215	.....	8737	S36x5	DS40x5	Own GRB	4-4½x5¾	OwnGRBA	U 4	No	Own 55	2F	R	10.1	66.1	8x18.4 lb.	I
46	631		3½–6	5750	168	215	.....	9000	B9.75/20	DB9.75/20	Own 3AD	6-4x5¼	Own 4B	U 4	No	Own 2C	2F	R	8.70	56.9	8x3x	C
47	641		3½–6	6450	180	214	.....	9700	B9.75/20	DB9.75/20	Own 1AB	6-4⅜x5¾	Own 7B	U 4	No	Own 2C	2F	R	7.16	46.9	8½x3	C
48	642		4–7½	6750	180	214	.....	10600	B9.75/24	DB9.75/24	Own 1AB	6-4⅜x5¾	Own 7B	U 4	No	Own 13C	2F	R	10.2	66.5	8½x3	C
49	52		5–7½	5100	174	215	.....	9409	S36x6	S40x12	Own GRB	4-4½x5¾	OwnGRBA	U 4	No	Own 52	2F	R	11.7	58.4	8x18.4 lb.	I
50	643		5–9	6950	180	214	.....	10900	B10.50/24	DB10.50/24	Own 1AB	6-4⅜x5¾	Own 7B	U 4	No	Own 13C	2F	R	10.2	66.5	8½x3	C
51	Wichita.....6-21		1½–3	2650	160	Op	12600	4693	B7.50/20	B7.50/20	Wau MS	6-3¾x4¾	Fu MLU	U 4	No	Own 30R	WF	H	6.5	34.8	5½x2¼x	C
52	6-60		2½–5	3750	170	Op	15300	5945	B8.25/20	B8.25/20	Wau MI	6-4x4¾	Fu JVUOG	U 5	No	Own 30R	WF	H	6.5	34.7	7x2¼x¼	C
53	6-95		3½–7	4950	173	Op	23400	8103	B9.75/20	DB9.75/20	Wau SRL	6-4⅜x5½	Fu MHOG	A 4	U 2	Own 50R	WF	H	5.8	86.5	7x2¼x¼	P
54	Willys Over. 6..C113		½	415	113	113	4000	1875	B5.00/19	B5.00/19	Own C113	6-3¼x3⅛	Own C113	U 3	No	Own C113	S½	H	4.6	12.4	5¼x2¼x	C
55	.....C131		1½	595	131	131	7300	2750	B5.50/20	P32x6	Own C131	6-3¼x3⅛	War T9	U 4	No	Cla B373B	SF	H	6.3	40.8	6x2¾x¼	C
56	.....C157		1½	635	157	157	7300	2900	B5.50/20	P32x6	Own C157	6-3¼x3⅛	War T9	U 4	No	Cla B373B	SF	H	6.3	40.8	7x2¾x	C
57	Witt Will.....C2B		2	2450	158	...	12500	5000	B6 50/20	DB6.50/20	Con 16C	6-3⅜x4⅝	BL 35-4	U 4	No	Tim 56200H	BF	H	6.16	36.4	6x2½x¼	C
58	.....C2W		2	2500	158	...	12500	5000	B6.50/20	DB6.50/20	Con 16C	6-3⅜x4⅝	BL 35-4	U 4	No	Tim 64800H	WF	H	7.4	41.0	6x2½x¼	C
59	.....R2B		2	2550	158	...	12500	5400	B6.50/20	DB6.50/20	Con 16R	6-4x4½	BL 35-4	U 4	No	Tim 56200H	BF	H	5.28	28.3	6x2½x¼	C
60	.....R2		2	2550	158	...	13200	5400	B6.50/20	DB32x6	Con 16R	6-4x4½	BL 35-4	U 4	No	Tim 64800H	WF	H	6.0	32.1	6x2½x¼	C
61	.....R3B		3	3150	159	...	15500	6075	B8.25/20	DB8.25/20	Con 18R	6-4x4½	BL 51	U 4	No	Tim 58200H	BF	H	6.83	36.5	7x2½x¼	C
62	.....R3		3	3150	159	...	15500	6075	B8.25/20	DB8.25/20	Con 18R	6-4x4½	BL 51	U 4	No	Tim 65200H	WF	H	6.75	37.4	7x2½x¼	C
63	.....R35		3½	4200	159	...	16800	6400	B9.00/20	DB9.00/20	Con 18R	6-4x4½	BL 51	U 4	No	Tim 65720H	WF	H	6.75	38.8	7x2½x¼	C
64	.....R4		4	4440	159	...	21600	7600	B9.75/20	DP9.75/20	Con 20R	6-4½x4¾	BL 55	U 4	No	Tim 65720H	WF	R	7.25	38.8	7x2½x¼	P
65	.....R4X		4	4600	159	...	21600	7600	B9.75/20	DP9.75/20	Con 21R	6-4¾x4¾	BL 55	U 4	No	Tim 65720H	WF	R	6.8	38.8	7x2½x¼	P
66	.....R5		5	5300	159	...	24000	8500	B10.50/20	DB10.50/20	Con 20R	6-4½x4¾	BL 55	A 4	A 7	Tim 66700H	WF	R	9.0	98.2	8x3x¼	C
67	.....R55		5½	5700	159	...	27000	9000	B10.50/20	DB10.50/20	Con 21R	6-4¾x4¾	BL 60	A 4	A	Tim68700DH	WF	H	10.0	48.2	8x3x¼	C
68	Woods.....32		1½	1995	160	Op	.....	4400	B6.50/20	DB6.50/20	Her WXA2	6-3½x4½	BL	U 4	No	Tim	SF	H	Opt	Opt	6x3½x¼	C
69	41		2	2550	170	Op	.....	5275	B7.50/20	DB7.50/20	Her WXB	6-3¼x4½	BL 314	U 4	No	Tim	SF	H	Opt	Opt	6x3½x¼	P
70	45		3	3465	180	Op	.....	5625	B7.50/20	DB7.50/20	Her WXC	6-4x4½	BL	U 4	No	Tim	SF	O	Opt	Opt	6x3½x¼	P
71	.....53B		3½	3995	190	Op	.....	6200	B8.25/20	DB8.25/20	Her WXC3	6-4¼x4½	BL 51	U 5	Op	Tim 58200H	SF	R	Opt	Opt	7x3½x¼	P
72	.....53W		3½	4595	190	Op	.....	6675	B9.00/20	DB9.00/20	Her WXC3	6-4¼x4½	BL 55	A 7	No	Tim 65720H	SF	R	Opt	Opt	7x3½x¼	P
73	75		4	4960	190	Op	.....	7200	B9.75/20	DP9.75/20	Her YXC3	6-4¾x4¾	BL 615	U 5	No	Tim 75720H	2F	R	Opt	Opt	7x3½x	P
74	90		5	5560	190	Op	.....	8100	B9.75/22	DB9.75/22	Her YXC4	6-4¾x5¼	BL 714	U 4	Op	Tim 66720	2F	R	Opt	Opt	7x3½x	P
75	105		.....	6975	190	Op	.....	8700	B10.50/22	DB10.50/22	Her HXC	6-5½x6	BL 70	A 4	No	Tim 68720	2F	R	Opt	Opt	.....	P
76	World.....DA-60	1		1195	150	166	8500	3650	B6.00/20	DB6.00/20	Lyc WTG	6-3x4¾	WG T9	U 4	No	Tim 53200H	SF	H	6.38	40.8	6¾x2¾x	T
77	.....DB-60	1½		1545	150	166	10000	3900	B6.50/20	DB6.50/20	Lyc 4SL	6-3¼x4½	WG T9	U 4	No	Tim 53200H	SF	H	6.38	40.8	6¾x2¾x	T
78	.....DC-60	2		1845	150	164	12000	4450	B7.00/20	DB7.00/20	Lyc 4SL	6-3¼x4½	WG T9	U 4	No	Tim 54200H	SF	H	6.8	43.5	6x3x¼	T
79	.....DA-88	2		2300	151	167	12000	4720	B7.50/20	DB7.50/20	Lyc GU	8-3x4¾	Fu MLU	U 4	No	Tim 54200H	SF	H	6.8	44.2	6x3x¼	T
80	.....DB-88	2½		2595	164	178	13500	5040	B8.25/20	DB8.25/20	Lyc GU	8-3x4¾	Fu MLU	U 4	No	Tim 56200H	SF	R	7.4	48.1	7x3x¼	T
81	.....DC-88	3		3295	164	182	15000	5400	P34x7	DP34x7	Lyc HD	8-3¼x4½	Fu MGU	U 4	No	Tim 56200H	SF	R	7.4	48.1	7x3x¼	T
82	.....DA-115	4		3595	168	182	17500	6100	P36x8	DP36x8	Lyc HD	8-3¼x4½	Fu MGU	U 4	No	Tim 58200H	SF	R	7.8	50.7	8x3x¼	T
83	.....DB-115	5		3895	165	191	20000	6550	P36x8	DP36x8	Lyc HD	8-3¼x4½	Fu MGU	U 4	No	Tim 65706D	WF	R	8.5	55.2	8x3x¼	T
	Six-Wheelers																					
84	Autocar....GE	4R	10	12500	198	234	45000	16300	P9.75/20	DP9.75/20	Sterling	6–5¼x6	BL	U 4	A 3	Tim 410	WF	R	8.2	82.	10½x3x	C
85	Chicago. 1-56-D	4	10	6000	174	222	40000	12740	B9.75/20	DB9.75/20	Wau 6SRL	6-4⅜x5½	BL 60	A 7	No	Tim 300W	WF	R	7.75	73.6	8x3½x	C
86	Corbitt..20SW6	4R	3–5	5720	Op	Op	22000	9000	B7.50/20	DB7.50/20	Con 20R	6-4½x4¾	BL 615	U 5	No	Tim SW100W	WF	..	Opt	Opt	8x3½x¼	C
87	.....28SW6	4R	5–7½	6380	Op	Op	30000	10000	P34x7	DP34x7	Con 21R	6-4¾x4¾	BL 607	A 7	No	Tim SW200W	WF	..	Opt	Opt	8x3x	C
88	.....36SW6	4R	7½–10	8800	Op	Op	38000	11500	B36x8	DP36x8	Con 21R	6-4¾x4¾	BL 607	A 7	No	Tim SW310W	WF	..	Opt	Opt	10½x3½x	T
89	.....40SW6	4R	10–15	11000	Op	Op	13000	13000	P38x9	DP38x9	Con 16H	6-4¾x5¾	BL 707	A 7	No	Tim SW410W	WF	..	Opt	Opt	10½x3½x	T
90	Day Elder..285	4R	8	5295	164	232	28500	12000	B8.25/20	DB8.25/20	Con 21R	6-4⅜x4¾	BL 60	A 7	No	TimSwD200h	WF	R	7.5	71.2	10x3¾x	C
91	345	4R	10	6395	164	232	34500	12500	B9.00/20	DB9.00/20	Con 21R	6-4⅜x4¾	BL 70	A 7	No	TimSwd310w	WF	R	8.5	79.9	10x3¾x	C
92	402	4R	12	7495	164	232	40200	14200	B9.75/20	DB9.75/20	Con 16H	6-4¾x5¾	BL 70	A 7	No	TimSwd410w	WF	R	9.0	84.6	10x3¾x	C
93	Diamond T..801	4R	4	4140	189	219	21000	8500	P36x8	P36x8	Her YXC	6-4¾x4¾	BL 55	A 7	No	Own	WF	H	Opt	Opt	6½x3x¼	P
94	1201	4R	6	5600	180	210	28000	11000	P34x7	DP34x7	Her RXB	6-4½x5¼	BL 60	A 7	No	Tim SW200	WF	R	Opt	Opt	9x3½x¼	P
95	1602	4R	8	6400	175	210	36000	11700	P36x8	DP36x8	Her RXC	6-4⅝x5¼	BL 60	A 7	No	Tim SW310	WF	R	Opt	Opt	9x3½x¼	P
96	1603	4R	8	7500	184	224	36000	12500	P36x8	DP36x8	Wau 6RB	6-5x5¾	BL 70	A 7	No	Tim SW310	WF	R	Opt	Opt	9x3½x¼	P
97	Douglas....F66	4R	5	7900	210	Op	36000	10000	P36x8	DP36x8	Bud GL6	6-4½x6	Fu HOG	U 8	A 8	Wis 8017	WF	R	7.75	72.7	10x2¾x	T
98	Fageol.....4-46	4R	.....	3900	172	205	22000	9400	P32x6	DP32x6	Wau MK	6-4½x4¾	BL 314	U 4	...	Tim Own	WF	R	7.66	50.6	7½x3½x	C
99	6-26	2R	.....	6000	195	220	28000	11100	B9.00/20	DB9.00/20	Wau 5RL	6-4⅜x5½	BL 554&60	U4	A 3	Tim Own	w/2f	R	5.19	127.	8x3½x	C
100	8-46	4R	.....	6900	195	220	34000	12200	B9.00/20	DB9.00/20	Wau 5RL	6-4⅜x5½	BL 554&60	U4	A 3	Tim Own	WF	R	5.19	127.	8x3½x	C
101	10-26	2R	.....	7400	184	232	32000	13700	B9.00/20	DB9.00/20	Wau AB	6-4½x5¾	BL 714&60	U4	A 3	Tim Own	2F	R	5.19	90.3	8½x4x	C
102	10-46	4R	.....	8100	184	232	40000	14100	B9.00/20	DB9.00/20	Wau AB	6-4½x5¾	BL 714&60	U4	A 3	Tim Own	WF	R	5.19	90.3	8½x4x	C
103	Federal..D2SW	2R	2½–3	1050	140	164	12500	3925	B6.00/20	P32x6	Con W10	4–3¾x4¼	WG T9	U 4	No	Cla B373A	SF	H	6.38	40.8	6x2¾x¼	C
104	.....E2SW	2R	2½–3	1150	145	169	12500	3975	B6.00/20	P32x6	Con 17E	6–3¾x4	WG T9	U 4	No	Cla B373A	SF	H	6.38	40.8	6x2¾x¼	C
105	.....D2D	4R	2½–3	1350	140	164	12500	4235	B6.00/20	P32x6	Con W10	4–3¾x4¼	WG T9	U 4	No	Cla B373A	BF	H	6.38	40.8	6x2¾x¼	C
106	.....E2D	4R	2½–3	1450	145	169	12500	4310	B6.00/20	P32x6	Con 17E	6–3¾x4	WG T9	U 4	No	Cla B373A	BF	H	6.38	40.8	6x2¾x¼	C
107	.....A6SW	2R	4	2195	164	182	18500	5620	P32x6	DP32x6	Con 16C	6–3⅜x4⅝	Own	A 4	No	Cla B610A	BF	H	6.38	38.5	6x3½x¼	C
108	F.W.D....MX6	Op	10–15	10500	170	Op	42750	15000	P40x10	DP40x10	Wau RB	6–5x5¾	BL	U 4	A 2	Wis	2F	H	8.36	173.	10x3x	C
109	.....X6	4F	6–10	6400	170	Op	24000	9500	P36x8	P36x8	Wau 8RL	6-4⅜x5½	Own	A 5	Op	Own X	BF	H	8.9	88.6	7x3x	C
110	(6)Gen.Mot..T9	4R	5–7½	5285	185	220	28000	9400	B7.50/20	DB7.50/20	Own 331	6–3¾x5	Own	U 4	A 3	Own	WF	R	9.25	129.	9x3½x	L
111	.....T95	4R	7–11	7545	189	224	40000	13250	P34x7	DP34x7	Own 468	6–4¼x5½	Own	U 4	Op	Own	WF	R	8.50	53.3	9x4x	L
112	.....T96	2	7–9	7195	189	224	34000	12850	P34x7	DP34x7	Own 468	6–4¼x5½	Own	U 4	Op	Own	2F	R	8.15	51.1	9x4x	L

Line Number	Engine: Piston Displacement	Engine: Compression Ratio	Engine: Torque lb. ft.	Engine: N.A.C.C. Rated H.P.	Engine: Max. Brake H.P. at R.P.M. Given	Engine: Valve Arrangement	Engine: Camshaft Drive	Engine: Piston Material	Main Bearings: Number and Diameter	Main Bearings: Length	Oiling System Type	Governor Make	Fuel Syst.: Carburetors Make	Fuel Syst.: Fuel Feed	Electrical: Ignition System Make	Electrical: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	Front Axle: Make and Model	Steering Gear Make	Brakes Service: Make, Location and Type	Brakes Service: Lining Area	Brakes Service: Drum Material	Brakes: Hand Type, Location	Body Mounting Data: Cab to Rear of Frame	Body Mounting Data: Cab to Rear Axle	Body Mounting Data: Width of Frame	Springs: Front	Springs: Rear	Springs: Auxiliary Type
1	299	5.0	193	33.8	85–2750	L	G	C	4–2⅛	9 5/16	FP	No	Str	G	DR	DR	D.Fu	Fe	Spi	Cla	Ros	B4IM	348	E	TX	114¾	63¾	32	38x2¼	50x3	½
2	554	4.6	224	36.2	90–2750	L	G	C	4–2¾	10	FP	Pe	Str	V	DR	DR	D.Fu	Ow	Spi	Tim	Ros	B4IM	453	E	TX	137 1/16	80¼	32	40x3	56x3	½
3	322	5.2	225	36.5	100–2800	L	G	C	5–2⅜	11	CC	No	Str	M	DR	DR	D.Fu	Fe	Spi	Cla	Ros	B4IM	348	E	TF	142	84½	32	40x3	50x3	..
4	354	4.6	224	36.2	90–2750	L	G	C	4–2¾	10	FP	Ha	Str	M	DR	DR	.BL	Mo	Spi	Tim	Ros	B4IM	453	E	TX	136¼	79½	32	40x3	56x3	½
5	420	5.2	300	44.4	130–2800	L	G	C	5–2¾	12¾	FP	No	Str	M	DR	DR	P.BL	Fe	Spi	Cla	Ros	B4IMV	348	E	TX	142	84½	32	40x3	56x3	½
6	354	4.6	224	36.2	90–2750	L	G	C	4–2¾	10	PS	Ha	Str	V	DR	DR	D.Fu	Fe	Spi	Eat	Ros	B4IM	453	E	TX	136¼	79½	32	40x3	56x3	½
7	462	4.6	300	45.9	100–2000	L	G	C	7–3	12⅞	FP	Ha	Str	M	DR	DR	.BL	Fe	Spi	Eat	Ros	B4IMV	453	E	TX	142	84½	32	40x3	56x3	½
8	420	5.2	300	44.4	130–2800	L	G	C	5–2¾	12¾	FP	No	Str	M	DR	DR	.BL	Fe	Spi	Eat	Ros	B4IMV	453	E	TX	142	84½	32	40x3	56x3	½
9	516	4.5	330	51.2	110–2000	L	G	C	7–3	12⅞	PS	....	Str	V	DR	DR	D.BL	Mo	Spi	Eat	Ros	B4IMV	565	E	TX	136¼	79½	32	40x3	56x4	½
10	516	4.5	330	51.2	110–2000	L	G	C	7–3	12⅞	FP	Wa	Str	V	DR	DR	D.BL	Ow	Spi	Eat	Ros	Ws4IA	759	E	TX	136½	76⅜	32	40x3	56x4	½
11	221	4.6	154	21.3	70–3200	L	C	C	4–2⅛	8 11/16	CC	No	Str	M	DR	DR	P.Lo	Mc	Spi	Own	Ros	B4IM	148	p	4I	.....	.....	43½	36x1¾	54x1¾	N
12	230	4.6	154	25.4	75–3200	L	C	C	4–2⅛	8 13/16	CC	....	Str	M	DR	DR	.Lo	Mc	Spi	Cla 208B	Ros	B4IM	231	P	....	83¼	48¼	34	36x1¾	45x2½	..
13	205	4.6	154	25.4	75–3200	L	C	C	4–2⅛	8 11/16	CC	Ha	Str	M	DR	DR	.Lo	Mc	Cle	Tim 31010N	Ros	B4IM	284	P	....	97 1/16	60	34	39x2	56x3	..
14	230	4.6	154	25.4	75–3200	L	G	C	4–2⅛	8 11/16	CC	Ha	Str	M	DR	DR	.Lo	Mc	MM	Tim	Ros	B4IMV	420	P	....	97 1/16	60	34	39x2½	56x3	½
15	381	4.5	240	40.0	85–2200	L	G	C	7–2⅝	12⅜	FP	Ow	Zen	P	DR	DR	P.Ow	Ow	Own	Own FN	Ros	O4FXM	450	D	FM	126	84	34	48x3	48x3	½
16	462	4.0	300	46.0	100–1900	L	G	C	7–3	13⅞	FP	Ow	Zen	P	DR	DR	P.Ow	Ow	Own	Own FM	Ros	O4FXM	450	D	FM	126	84	34	48x4	48x4	½
17	462	4.0	300	46.0	100–1900	L	G	C	7–3	13⅞	PC	Ow	Str	V	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	108	78	36	52x4	52x4	½
18	462	4.0	300	46.0	100–1900	L	G	C	7–3	13⅞	PC	Ow	Str	V	Sc	DR	P.Ow	Ow	Own	Own F	Ros	OFXM	600	D	FX	126	96	36	52x4	52x4	½
19	677	4.0	440	60.0	130–1900	L	G	C	7–3½	10⅜	PC	Ow	Zen	P	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	126	96	36	52x4	52x4	½
20	677	4.0	440	60.0	130–1900	L	G	C	7–3½	10⅜	PC	Ow	Zen	P	Sc	DR	P.Ow	Ow	Own	Own F	Ros	O4FXM	600	D	FX	126	96	36	52x4	52x5	½
21	358	4.6	228	38.4	77–2000	L	G	C	7–2⅝	10½	FP	Ha	Str	M	DR	DR	P.BL	Mo	Spi	Tim	Ros	L4IHV	348	a	TX	Op	Op	33	40x2½	60x3	½
22	322	1.9	225	36.4	100–2400	L	C	C	–2⅝	10¼	FP	Ha	Str	M	DR	DR	P.BL	Mo	Spi	Tim	Ros	L4IHV	348	a	TX	Op	Op	33	40x2½	60x3	½
23	322	1.9	225	36.4	100–2400	L	C	C	–2⅝	10¼	FP	Ha	Str	P	DR	DR	P.BL	Mo	Spi	Tim	Ros	L4IHV	383	a	TD	Op	Op	33	40x2½	60x3	½
24	381	4.6	240	40.8	83–2200	L	G	C	7–2⅝	10½	FP	Ha	Str	P	DR	DR	P.BL	Mo	Spi	Tim	Ros	L4IHV	383	a	TD	Op	Op	33	40x2½	60x3	½
25	462	4.6	300	45.9	97–2000	L	G	C	7–3	13⅞	FP	Wa	Str	P	DR	DR	P.BL	Mo	Spi	Tim	Ros	L4IHV	502	a	TD	Op	Op	33	40x2½	62x3½	½
26	420	...	300	45.0	130–2800	L	G	C	5–2¾	12¾	FP	No	Zen	..	DR	DR	P.BL	Mo	Opt	Tim	Ros	T2IMV	502	a	TD	Op	Op	33	44x3	62x3½	½
27	677	4.7	450	60.0	140–2000	L	G	C	4–3½	11⅜	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 27450tw	Ros	Ws4IA	590	a	TD	Op	Op	33	42x3	62x3½	½
28	677	4.7	450	60.0	140–2000	L	G	C	4–3½	11⅜	FP	Wa	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 27450tw	Ros	Ws4IA	717	a	TD	Op	Op	33	42x3	62x4	½
29	260	4.3	170	29.4	54–2100	L	C	S	7–2⅝	10 11/16	FP	No	Zen	V	DR	LN	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	.....	.....	34½	39x2¼	50x2½	N
30	260	4.3	170	29.4	54–2100	L	C	S	7–2⅝	10 11/16	FP	No	Zen	V	DR	DR	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	112	58¼	34½	41x2¼	54x2½	N
31	289	4.3	170	25.6	45–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	112	58¼	34⅝	39x2¼	50x2½	N
32	260	4.3	170	29.4	54–2100	L	C	S	7–2⅝	10 11/16	FP	No	Zen	V	DR	DR	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	112	58¼	34½	41x2¼	54x2½	N
33	289	4.3	170	25.6	45–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	MM	Own 4D	Ha	L4IH	276	a	TX	112	58¼	34⅝	39x2½	50x2½	N
34	299	4.7	190	33.7	70–2100	L	G	C	7–2⅝	10 11/16	FP	Ha	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	349	a	CX	115 1/16	68 1/16	34⅝	41x2½	54x3	N
35	289	4.3	170	25.6	45–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	349	a	CX	115 1/16	68 1/16	34⅝	41x2½	54x3	N
36	289	4.3	170	25.6	45–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	Ei	....	P.Ow	Ow	Spi	Own 3D	Ow	O2IM	268	a	CI	119⅜	81⅜	36	41½x2½	47½x3	N
37	299	4.7	190	33.7	70–2100	L	C	C	7–2⅝	10 11/16	FP	Ha	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	349	a	CX	115 1/16	68 1/16	34⅝	41x2½	54x3	N
38	289	4.3	170	25.6	45–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	DR	DR	P.Ow	Ow	Spi	Own 7D	Ha	L4IH	349	a	TX	115¾	68 1/16	34⅝	41x2½	54x3	N
39	396	4.9	250	38.4	100–1800	H	C	S	7–2¾	13⅛	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 1D	Ros	LO4IHV	414	a	CI	107½	67½	34	41x2½	54x3	N
40	326	4.3	207	28.9	54–1600	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	Ei	....	P.Ow	Ow	Spi	Own 51A	Ow	O2IM	349	a	CX	146	84⅝	34	40½x2½	54⅜x3	N
41	396	4.9	250	38.4	82–1800	H	C	S	7–2¾	13⅛	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 11D	Ros	LO4IHV	484	a	CI	107½	67½	34	41x2½	54x3½	N
42	396	4.9	250	38.4	82–1800	H	C	S	7–2¾	13⅛	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 6D	Ros	O4IHV	484	a	CI	144⅞	84⅞	34 1/16	42x3	56x3½	N
43	519	4.0	333	45.9	118–1800	H	C	S	7–3	15 11/32	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 6D	Ros	O4IA	553	a	CI	156¾	91¾	34 1/16	42x3	56x3½	½
44	326	4.3	207	28.9	54–1600	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	Ei	....	P.Ow	Ow	Spi	Own 2D	Own	OPXM	224	a	CI	148½	93½	34⅛	40½x3	56x3½	½
45	326	4.3	207	28.9	54–1600	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	Ei	....	P.Ow	Ow	Spi	Own 55	Own	OPXM	224	a	2I	167⅝	107⅛	42½	44x3	51⅞x5	N
46	396	4.9	250	38.4	100–1800	H	C	S	7–2¾	13⅛	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 19D	Ros	O4IA	595	a	CI	144⅞	84⅞	34 1/16	42x3	56x3½	½
47	519	4.0	333	45.9	118–1800	H	C	S	7–3	15 11/32	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 9D	Ros	O4IA	595	a	CI	156¾	91¾	34 1/16	42x3	56x3½	N
48	519	4.0	333	45.9	118–1800	H	C	S	7–3	15 11/32	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 9D	Ros	O4IA	623	a	CI	156¾	91¾	34 1/16	42x3	51⅞x5	N
49	326	4.3	207	28.9	54–1800	L	G	C	3–2¼	11⅜	FP	Ow	Zen	V	Ei	....	P.Ow	Ow	Spi	Own 55	Ow	OPXM	224	a	2I	167⅝	107⅛	42½	44x3	51⅞x5	N
50	519	4.0	333	45.9	118–1800	H	C	S	7–3	15 11/32	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 9D	Ros	O4IA	623	a	CI	156¾	91¾	34 1/16	42x3	51⅞x5	N
51	315	4.6	200	27.3	70–2200	L	G	C	7–2⅝	12½	CC	Wa	Str	M	DR	DR	D.Fu	Yo	Spi	She 3FA10	Ros	O2IX	320	p	FD	130¾	78¾	30	40x2¼	50x3	½
52	358	4.4	230	38.4	77–2200	L	G	C	7–2⅝	12½	CC	Wa	Str	M	DR	DR	D.Fu	Yo	Spi	Shu 5550	Ros	O2IV	320	p	CD	141⅞	83⅞	30	40x2¼	56x3	½
53	462	4.5	304	46.0	97–2000	L	G	C	7–3	13⅞	CC	Wa	Str	M	DR	DR	D.Fu	Yo	Spi	Shu 610	Ros	O2IV	320	p	FD	143¾	91¾	30	40x2¼	56x3	½
54	193	5.2	135	25.3	65–3400	L	C	C	4–2⅜	6 21/32	CC	No	Ti	M	AL	AL	P.Ow	Fe	Spi	Own C113	Own	B4IM	143	P	4I	.....	.....	.....	36x1¾	51x1¾	N
55	193	5.2	135	25.3	65–3400	L	C	C	4–2⅜	6 21/32	CC	No	Ti	M	AL	AL	P.Ow	Fe	Spi	Own C131	Own	B4IM	235	P	4I	86¾	51⅞	37	36x1¾	45x2½	N
56	193	5.2	135	25.3	65–3400	L	C	C	4–2⅜	6 21/32	CC	No	Ti	M	AL	AL	P.Ow	Fe	Spi	Own C157	Own	B4IM	235	P	4I	121 11/16	77 11/16	37	36x1¾	45x2½	N
57	248	5.0	150	27.3	66–3200	L	C	C	7–2⅜	10 5/32	PC	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 33000H	Ros	L4IH	578	P	TX	Var	79½	32	41x2½	54x3	½
58	248	5.0	150	27.3	66–3200	L	C	C	7–2⅜	10 5/32	PC	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 33000H	Ros	L4IH	578	P	TX	Var	79½	32	41x2½	54x3	½
59	311	4.1	197	38.4	72–2400	H	C	C	7–2¾	11 13/16	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 33000H	Ros	L4IH	578	P	TX	Var	76	32	41x2½	54x3	½
60	311	4.1	197	38.4	72–2400	H	C	C	7–2¾	11 13/16	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 33000H	Ros	L4IH	578	P	TX	Var	76	32	41x2½	54x3	½
61	339	4.2	212	38.4	82–2400	H	C	N	7–2¾	13 5/16	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	650	P	CD	Var	76	32	41x2½	54x3	..
62	339	4.2	212	38.4	82–2400	H	C	N	7–2¾	13 5/16	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	650	P	CD	Var	76	32	41x2½	54x3	..
63	339	4.2	212	38.4	82–2400	H	C	N	7–2¾	13 5/16	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	768	P	CD	Var	76	32	41x2½	54x3	½
64	381	4.2	236	40.8	88–2200	H	C	N	7–2¾	13 5/16	FP	No	Zen	E	DR	DR	D.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	768	P	CD	Var	76	32	41x2½	54x3	½
65	427	4.2	238	45.9	100–2600	H	C	N	7–2¾	13 5/16	FP	No	Zen	E	DR	DR	D.BL	Pe	Spi	Tim 35000H	Ros	L4IHV	768	P	CD	Var	76	32	41x2½	54x3	½
66	381	4.2	236	40.8	88–2400	H	C	N	7–2¾	13 5/16	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 26050H	Ros	L4IHV	690	P	TD	Var	76	36	....	....	..
67	427	4.2	268	45.9	100–2600	H	C	N	7–2¾	13 5/16	FP	No	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 26050H	Ros	L4IHV	...	P	TD	.....	76	36	....	....	..
68	260	4.7	...	29.4	60–2400	L	G	C	7–2⅝	13¼	PC	No	Str	M	AL	AL	D.BL	Ch	Blo	Tim	Ros	L4IH	380	a	TX	Opt	Opt	34	40x2¼	49x2½	½
69	298	4.7	...	33.7	68–2400	L	G	C	7–2⅝	13¼	PC	No	Str	M	AL	AL	D.BL	Ch	Blo	Tim 31000H	Ros	L4IH	452	a	TX	Opt	Opt	34	40x2¼	49x2½	½
70	339	4.7	...	38.4	76–2400	L	G	C	7–2⅝	13¼	PC	Ha	Str	M	DR	DR	D.BL	Ch	Blo	Tim 33000H	Ros	L4IH	577	a	TX	Opt	Opt	34	41x2½	50½x3	½
71	383	4.7	...	43.3	84–2200	L	G	S	7–2⅝	13¼	PC	Ha	Str	M	AL	AL	D.BL	Ch	Blo	Tim 35000H	Ros	L4IH	660	a	FD	Opt	Opt	34	41x2½	50½x3	½
72	383	4.7	...	43.3	84–2200	L	G	S	7–2⅝	13¼	PC	Ha	Str	M	AL	AL	D.BL	Ch	Blo	Tim 35000H	Ros	L4IH	768	a	FD	Opt	Opt	34	41½x2½	53x3	½
73	479	4.4	...	51.2	104–2200	L	G	C	7–3	15	PC	Ha	Str	M	RB	AL	D.BL	Ch	Blo	Tim 35000H	Ros	L4IH	768	a	FD	Opt	Opt	34	41½x2½	53x3	½
74	529	...	...	51.2	124–2200	L	G	C	7–	15	PC	Ha	Str	M	RB	AL	D.BL	Ch	Blo	Tim 26450	Ros	T2IMV	500	a	2I	Opt	Opt	34	41½x2½	54½x3	½
75	770	4.5	...	66.1	164–2000	L	G	S	7–3½	....	PC	Ha	Str	M	RB	AL	D.BL	Ch	Blo	Tim	Ros	T2IMV	500	...	2I	Opt	Opt	34	41½x2½	....	½
76	201	5.5	142	21.6	63–2900	L	G	C	4–2⅜	7	CC	No	Zen	V	AL	AL	dp.Lo	Pe	Spi	Tim 30000H	Ros	L4IH	268	p	TX	126	70	34	38x2½	54x2½	N
77	224	4.7	145	25.3	61–2750	L	G	C	4–2⅜	7 11/16	PC	No	Zen	V	AL	AL	dp.Lo	Pe	Spi	Tim 30000H	Ros	L4IH	268	p	TX	126	70	34	38x2½	54x2½	½
78	224	4.7	145	25.3	61–2750	L	G	C	4–2⅜	7 11/16	PC	No	Zen	V	AL	AL	dp.Lo	Pe	Blo	Shu 5427	Ros	L4IH	306	E	TX	126	70	34	38x2½	54x2½	½
79	268	5.3	184	28.8	96–3400	L	C	C	5–2⅜	8⅝	CC	Ha	Zen	M	AL	AL	dp.Lo	Pe	Blo	Shu 5427	Ros	L4IH	306	E	TD	126	71	34	38x2½	54x2½	½
80	268	5.3	184	28.8	96–3400	L	C	C	5–2⅜	8⅝	CC	Ha	Zen	M	AL	AL	dp.Lo	Mo	Blo	Shu 5432	Ros	L4IHV	354	E	TD	Opt	Opt	34	38x2½	54x2½	½
81	298	5.2	205	33.8	115–3300	L	C	C	5–2⅜	10	PC	Ha	Zen	M	AL	AL	dp.Lo	Mo	Spi	Shu 5432	Ros	L4IHV	354	E	TD	Opt	Opt	34	38x2½	54x2½	½
82	298	5.2	205	33.8	115–3300	L	C	C	5–2⅜	10	PC	Ha	Zen	M	AL	AL	dp.Lo	Mo	Spi	Shu 5572	Ros	L4IHV	397	E	TD	Opt	Opt	33½	42x3	56x3	½
83	298	5.2	205	33.8	115–3300	L	C	C	5–2⅜	10	PC	Ha	Zen	M	AL	AL	dp.Lo	Mo	Spi	Shu 5572	Ros	L4IHV	643	E	TD	Opt	Opt	33½	42x3	56x3	½
84	780	4.7	475	66.1	156–1800	L	G	A	7–3	16⅛	FP	Str	Zen	M	NE	LN	dp.BL	GO	Spi	Tim	Ros	T6IA	720	a	FD	181½	101½	34¼	42½x3	61x5	½
85	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	FP	Wa	Str	M	AL	AL	D.BL	Ch	Spi	Tim 26450	Ros	TWsRIA	536	a	TD	.....	.....	35½	44½x3	60x4	..
86	411	4.2	236	40.0	89–2400	H	C	C	7–2¾	13	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35100tw	Ros	Ws6IA	...	a	TD	Opt	.....	.....	40x2½	56x4	½
87	427	4.2	268	45.9	100–2600	H	C	C	7–2¾	13	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 26450W	Ros	Ws6IA	...	a	TD	Opt	.....	.....	46x3	56x4	½
88	427	4.2	268	45.9	100–2600	H	C	C	7–2¾	13	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 27450W	Ros	Ws6IA	...	a	TD	Opt	.....	.....	46x3	66x4	½
89	611	4.5	384	54.1	127–2300	L	G	A	7–3	13 11/16	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 27450W	Ros	Ws6IA	...	a	TD	Opt	.....	.....	46x3	66x4	½
90	427	...	...	45.9	100–2600	H	C	N	7–2¾	13 5/16	FP	Co	Zen	V	DR	DR	D.BL	Pe	Blo	Tim 36020H	Ros	L6IHV	...	...	TD	132	80	37	48x3	64x4	½
91	427	...	...	45.9	100–2600	H	C	N	7–2¾	13 5/16	FP	Co	Zen	V	DR	DR	D.BL	Pe	Blo	Tim 36020tw	Ros	TrIA	...	...	TD	132	80	37	48x3	64x5	½
92	611	...	...	54.2	127–2300	L	G	A	7–3	13 11/16	FP	Co	Zen	M	DR	DR	D.BL	Pe	Blo	Tim 36020tw	Ros	TrIA	...	...	TD	126¼	74¼	37	45½x3	64x5	½
93	428	4.4	280	45.9	93–2200	L	G	C	7–3	14	PC	Ha	Zen	M	AL	AL	D.Co	GO	SpP	Shu 5582B	Ros	L6IHV	571	a	TD	162	103	34	45¼x2½	58x4	N
94	501	4.4	330	48.6	111–2200	L	G	C	7–3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	SpB	Tim 16300	Ros	Ws4I	238	a	TD	162	100¼	37	46x3	50x4	N
95	529	4.4	350	51.3	114–2200	L	G	C	7–3	12½	PC	Ha	Zen	M	AL	AL	D.Co	GO	SpB	Shu	Ros	Ws4I	238	a	TD	138¾	94¾	37	46x3	50x4	N
96	677	...	418	60.0	127–2000	L	G	C	4–3½	11⅜	PC	Wa	Zen	M	LN	LN	D.BL	GO	SpB	Shu	Ros	Ws4I	238	a	TD	141	93	37	46x3	50x4	N
97	572	...	...	48.6	114–1900	L	G	C	4–3	10 9/16	PC	Bu	Zen	E	LN	LN	D.Fu	On	Blo	Shu 615	Ros	WrIMV	960	...	CX	240	140	36	48x3	65x3½	N
98	381	4.4	240	40.8	82–2200	L	G	A	7–2⅝	12½	FP	No	Zen	V	DR	DR	P.BL	Pe	PeS	Tim 33020	Ros	L4rIHV	459	H	TX	168	91⅛	33½	37x2½	46x3½	N
99	462	4.5	300	46.0	98–2000	L	G	A	7–3	13⅞	PC	No	Zen	V	DR	DR	P.BL	Pe	PeS	Tim 15302	Ros	T4rIA	504	H	TX	192	114⅝	34	41x3	46x3½	N
100	462	4.5	300	46.0	98–2000	L	G	A	7–3	13⅞	PC	No	Zen	V	DR	DR	P.BL	Pe	PeS	Tim 15302	Ros	T4rIA	504	H	TX	192	114⅝	34	41x3	46x3½	N
101	549	4.6	330	48.6	100–2000	L	G	A	4–3½	11⅜	PC	No	Zen	V	DR	DR	P.BL	Pe	PeS	Tim 17300	Ros	T4rIA	504	H	TX	213½	149¾	34	42½x3	49½x4	N
102	549	4.6	330	48.6	100–2000	L	G	A	4–3½	11⅜	PC	No	Zen	V	DR	DR	P.BL	Pe	PeS	Tim 17300	Ros	T4rIA	504	H	RX	213½	149¾	34	42½x3	49½x4	N
103	200	4.7	126	24.0	48–2500	L	C	A	3–2⅛	5⅞	PC	Mo	Zen	M	DR	DR	P.BB	Lo	CC	Cla F212	Ge	L6IH	566	P	TX	123	64¼	34	38x2¼	40½x2½	N
104	215	5.1	137	27.3	60–2600	L	C	A	7–2⅛	9 11/16	PC	Mo	Zen	M	DR	DR	P.BB	Lo	CC	Cla F212	Ge	L6IH	566	P	TX	118	63¾	34	38x2¼	40½x2½	N
105	200	4.7	126	24.0	48–2500	L	C	A	3–2⅛	5⅞	PC	Mo	Zen	M	DR	DR	P.BB	Lo	CC	Cla F212	Ge	L6IH	566	P	TX	123	64¼	34	38x2¼	40½x2½	N
106	215	5.1	137	27.3	60–2600	L	C	A	7–2⅛	9 11/16	PC	Mo	Zen	M	DR	DR	P.BB	Lo	CC	Cla F212	Ge	L6IH	566	P	TX	118	63¾	34	38x2¼	40½x2½	N
107	248	5.0	150	27.3	64–2500	L	C	A	7–2⅜	10 5/32	PC	KP	Zen	V	DR	DR	P.BB	Lo	CC	Cla F304	Ros	L6IH	675	P	TI	158	84	34	40x2¼	44x3	N
108	677	4.4	460	60.0	125–2000	L	G	C	4–3½	11⅜	PC	Wa	Zen	M	NE	NE	D.BL	Pe	Blo	Wis	Ros	B6IMV	504	G	T4	.....	.....	34	48x3½	....	N
109	462	4.5	300	45.9	102–2400	L	G	C	7–3	13⅞	PC	Wa	Zen	M	RB	NE	D.BL	Pe	Blo	Own M	Ros	B6IMV	541	G	4M	180	137	36	42¾x2½	44x3	N
110	331	4.4	230	34.7	94–2500	H	G	A	4–2½	8 21/32	PC	Ha	Str	M	DR	DR	D.On	Lo	.....	Own	Ja	BrIA	557	P	TD	161	100¼	34⅛	40x3	50x4	½
111	468	4.6	340	43.3	113–2100	H	C	A	7–2¾	14 13/32	FP	Ha	Str	M	DR	DR	D.On	Lo	.....	Own	Ja	B6IA	817	P	TX	161	100	34 1/16	50x3½	45x4	N
112	468	4.6	340	43.3	113–2100	H	C	A	7–2¾	14 13/32	FP	Ha	Str	M	DR	DR	D.On	Lo	.....	Own	Ja	B6IA	817	P	TX	161	100	34 1/16	50x3½	45x4	N

Line Number	MAKE AND MODEL	Wheels Driven—6-Wheelers	GENERAL (See Keynote)						TIRE SIZE		MAJOR UNITS									FRAME	
											ENGINE		TRANSMISSION			REAR AXLE			GEAR RATIOS			
			Tonnage Rating	Chassis Price	Standard Wheelbase	Max. W. B. Furnished	Gross Vehicle Weight	Chassis Wt. (Stripped)	Front	Rear	Make and Model	No. of Cylinders Bore and Stroke	Make and Model	Location and Forward Speeds	Aux. Location and Speeds	Make and Model	Gear and Type	Drive and Torque	In High	In Low	Side Rail Dimensions	Type
1	G-P....75-6SW	4R	6–8	6440	174	Op	28000	9500	B9.75/20	B11.25/20	Wau 8RL	6–4⅜x5¼	Fu VUOG	U 5	No	Tim SW200	WF	R	7.50	53.0	11x3½x⅜	T
2	.....75-8SW	4R	6–8	6400	174	Op	28000	9500	B9.75/20	B11.25/20	Lyc AEC	8–3¾x4¾	Fu VUOG	U 5	No	Tim SW200	WF	R	7.50	53.0	11x3½x⅜	T
3	.....85-6SW	4R	8–10	8695	169	Op	36000	12000	B10.50/24	B12.75/24	Wau 6AB	6–4½x5¾	Fu MHU	U 4	A 3	Wis SD310	DF	R	8.50	10.6	12x3½x⅜	T
4	.....95-6SW	4R	10–12	9640	176	Op	40500	13000	B10.50/24	B13.50/24	Wau 6RB	6–5x5¾	Fu MUH	U 4	A 3	Wis SD410	DF	R	10.2	128.	14x3½x⅜	T
5	H'ndricks n24D	4R	2–6	3600	Op	Op	24000	7000	B7.50/20	DB9.00/20	Wau MK	6–4⅛x4¾	Fu JVU	U 5	No	Own	2B	A	Opt	Opt	6x2½x⅜	P
6	.....36D	4R	5–12	6600	Op	Op	36000	12000	B9.75/20	DB9.75/20	Wau 6SRL	6–4⅜x5½	Fu VU	U 7	No	Own	2B	A	Opt	Opt	8x3x⅜	P
7	.....38D	4R	.....	8000	Op	Op	38000	13200	B9.75/20	DB9.75/20	Wau 6SRL	6–4⅜x5⅛	D. BL	A 7	No	Eat 44000	2F	A	Opt	Opt	8x3x⅜	P
8	.....44D	4R	.....	9000	Op	Op	44000	14000	B9.75/22	DB9.75/22	Wau RB	6–5x5¾	D. BL	A 7	No	Eat 44000	2F	A	Opt	Opt	8x3x⅜	P
9	Indiana 95SWB	2C	.....	1675	168	186	20000	5500	P32x6	DP32x6	Her JXC	6–3¾x4¼	BL 224	U 4	No	Tim SBT150	SF	T	7.4	45.8	7⅜x2¾x⅜	C
10	.....95SWW	4R	.....	1735	168	186	20000	5800	P32x6	DP32x6	Her JXC	6–3¾x4¼	BL 224	U 4	No	Tim SW75	WF	T	7.4	45.8	7⅜x2¾x⅜	C
11	Ken...186SDT	2C	.....	6450	.....	.....	.....	.....	B9.00/20	DB9.00/20	Her YXC2	6–4½x4¾	BL 1554	U 4	A 3	Tim 8dt310w	2F	H	7.33	104.	9x3x¼	T
12	.....241SDT	2C	.....	6850	.....	.....	.....	.....	B9.00/20	DB9.00/20	Her RXB	6–4½x5¼	BL 714	U 4	A 3	Tim 8dt310w	2F	H	7.33	85.5	9x3x¼	T
13	.....346A	4R	.....	8800	.....	.....	.....	.....	B9.75/20	DB9.75/20	HaS 160	6–4¼x5½	BL 714	U 4	A 3	Tim 310W	WF	H	7.25	84.5	8x3x⅜	C
14	.....346B	4R	.....	8550	.....	.....	.....	.....	B9.75/20	DB9.75/20	Bud GF-6	6–4¾x6	BL 714	U 4	A 3	Tim 310W	WF	H	7.25	98.4	8x3x⅜	C
15	.....346C	4R	.....	9500	.....	.....	.....	.....	B9.75/20	DB9.75/20	HaS 175	6–5x6	BL 714	U 4	A 3	Tim 310W	WF	H	7.25	98.4	8x3x⅜	C
16	.....386C	4R	.....	10200	.....	.....	.....	.....	B9.75/20	DB9.75/20	HaS 175	6–5x6	BL 714	U 4	A 3	Tim SW410w	WF	H	7.60	103.	8x3x⅜	C
17	Kleiber.....280	4R	7½	6000	201	...	28000	10060	B9.00/20	DB9.00/20	Con 20R	6–4⅛x4¾	BL 714–60	A 7	A 3	Tim Sw200tw	WF	R	7.75	73.6	7x3½x⅜	P
18	340	4R	10	7000	210	...	34000	11900	B9.75/20	DB9.75/20	Con 21R	6–4⅜x3¾	BL 714–60	A 7	A 3	Tim Sw300W	WF	R	9.33	88.6	8x3½x⅜	P
19	.....340T	4R	10	8000	215	...	34000	13650	B9.75/20	DB9.75/20	Con 22R	6–4½x5¼	BL 714–60	A 7	A 3	Tim Sw400W	WF	R	10.3	98.1	8x3½x⅜	C
20	La Fran-R..Q6	4R	9–12	(10)	Op	260	40000	14900	B10.50/20	DB10.50/20	Own 312B	12–4x5	BL 714	U 4	No	Tim SWD410	WF	..	Opt	Opt	12x3½x1¼	C
21	LeMoon(9) .701	4R	5–6	4675	187	199	25500	8500	B8.25/20	DB8.25/20	Lyc AEC	8–3¼x4¾	Fu VUOG	U 5	No	Tl 63703-97H	WF	R	5.20	43.8	7x4x¼	P
22	801	4R	6–7	5400	187	199	32500	9720	B9.00/20	DB9.00/20	Lyc AEC	8–3¾x4¾	Fu VOUG	U 5	No	Tl 65703-97H	WF	H	5.75	47.7	7x4x¼	P
23	802	4R	6–7	5650	187	199	32500	9800	B9.00/20	DB9.00/20	Wau 6SRL	6–4⅜x5½	Fu VOUG	U 5	No	T65703-97tW	WF	H	5.75	47.7	7x4x¼	P
24	900	4R	7–8	6800	191	203	36000	12000	B9.75/20	DB9.75/20	Wau 6SRL	6–4⅜x5½	BL 607	A 7	No	TimSW310W	WF	H	9.25	86.9	9x4x⅜	P
25	1000	4R	8–10	7500	196	208	40000	12600	B9.75/24	DB9.75/24	Wau 6AB	6–4½x5¾	BL 714	U 4	3	TimSW310W	WF	H	9.25	128.	9x4x⅜	P
26	1200	4R	10–12	8100	196	208	40000	14000	B9.75/24	DB9.75/24	Wau 6RB	6–5x5¾	BL 714	U 4	3	TimSW410W	WF	H	9.25	128.	9x4x⅜	P
27	Maccar...SW86	4R	10–12	9000	216	260	38700	.....	B10.50/20	DB10.50/20	Her RXCP	6–4⅜x5¼	BL 615	A 5	No	Tim	W4	..	9.0	59.	12x3x¼	T
28	Mack.....AC	4R	8–15	8500	165	205	45450	14550	P40x8	DP40x8	Own BK	6–4½x5½	Own AC	J 4	No	Own AC	CD	A	9.26	59.4	8½x2¾x¼	C
29	.....AK	4R	8–15	9000	165	205	41350	15900	B9.75/22	DB9.75/22	Own BK	6–4½x5½	Own AC	A 4	No	Own AK6	2F	A	7.46	47.8	8½x2¾x¼	C
30	.....AP	4R	8–15	10300	165	205	40300	14850	P40x8	DP40x8	Own AP	6–5x6	Own AC	J 4	No	Own AP	CD	R	9.26	59.4	8x3x⅜	C
31	.....AP	4R	8–15	11003	165	205	41550	16400	B9.75/22	DB9.75/22	Own AP	6–5x6	Own AC	A 4	No	Own AK6	2F	A	7.46	47.8	8x3x⅜	C
32	P.-A..34L50184....		.....	(11)	200	...	34000	13200	B9.75/20	DB9.75/20	Her	6–4½x5¼	Co TNU	U 4	Op	Tim SW310	W	A	9.25	49.0	10x3x⅜	C
33	.....34K61184....		.....	(11)	200	...	34000	14200	B9.75/20	DB9.75/20	Her	6–4¾x5¾	Own	U 4	Op	Tim SW310	W	A	7.75	40.6	10x3x⅜	C
34	.....44K77984....		.....	(11)	200	...	44000	14500	B10.50/20	DB10.50/20	Her	6–5¼x6	Own	U4	Op	Tim SW410	W	A	9.	47.2	10x3x⅜	C
35	Relay....60SW	2R	10	6545	175	205	36500	12000	P38x7	DP40x8	Bud BA6	6–4⅛x5½	Fu VU16	U 5	No	Own 60	2F	..	9.09	63.6	8⅛x3½x⅜	P
36	Sterling FCS170	4R	8–8½	10210	Op	Op	.....	14100	P36x8	DP36x8	Wau HB	6–4¼–5¾	Own UC2	U 4	A 3	Own	CD	R	9.5	63.2	15x3¼x¼	C
37	.....FCS180	4R	9–9½	10400	Op	Op	.....	14450	P40x8	DP40x8	Wau AB	6–4½–5¾	Own UC8	U 4	A 3	Own	CD	R	9.5	59.6	15x3¼x¼	C
38	.....FCS210	4R	10½–12	10625	Op	Op	.....	14750	P40x8	DP40x8	Wau RB	6–5x5¾	Own UC8	U 4	A 3	Own	CD	R	9.5	59.6	15x3¼x¼	C
39	Wht.636SW200	4R	5–6	6245	193	205	.....	10000	B8.25/20	DB8.25/20	Own 3AD	6–4x5¼	Own 4B	U 4	No	Tim SW200H	WF	R	9.75	44.2	8⅛x3⅛x⅜	C
40	...642SW310	4R	7–9	8025	198	210	.....	12670	B9.00/20	DB9.00/20	Own 1AB	6–4⅜x5¾	Own 7B	U 4	No	TimSW310W	WF	R	8.5	55.6	8⅛x3⅛x⅜	C
41	...643SW410	4R	9–11	8550	198	215	.....	14400	P40x8	DP40x8	Own 1AB	6–4⅜x5¾	Own 7B	U 4	No	TimSW410W	WF	R	10.2	69.1	8⅛x3⅛x⅜	C

KEY TO ABBREVIATIONS AND REFERENCE MARKS

GENERAL

Chassis Price—Where a tonnage range is indicated the chassis price quoted applies to the standard wheelbase and specifications listed. All prices are F.O.B. factory.

Gross Vehicle Weight—Is chassis weight, plus body and cab, plus payload. Where a tonnage range is indicated the gross vehicle weight given is governed by the tires specified.

Chassis Weight Stripped—Includes gas, oil and water and all things included in chassis price. Does not include the weight of cab.

Maximum Brake H. P. at Given R.P.M.—Is actual dynamometer reading without accessories.

(T)—This designation accompanying a model number indicates vehicle is specifically designed for tractor use only

(1) **Brockway**—Five speed transmissions furnished optional at extra cost.

(2) **Chevrolet**—Utility model with dual 30x5 rear tires lists at $545.

(3) **Corbitt**—Larger engines and corresponding transmissions, clutches, axles etc., provided on all models of Corbitt trucks when type of service requires them.

(4) **Day Elder**—Model 75—1½ ton—same specifications except price—$945, and larger tire size—B6.00/20 front and DB6.00/20 rear.

(5) **Dodge**—F-61 available as special tractor truck with 146-inch wheelbase with model designation of F-60, at $2645. G-81 available as special tractor truck with 146-inch wheelbase with model designation of G-80, at $5250.

(6) **General Motors**—Gross vehicle weight indicated for each model in table is the **Straight Rating** (combined weight of chassis, body, equipment and payload) for which chassis is designed and guaranteed to satisfactorily operate under average conditions. The size of the tires used does not affect this **Straight Rating**, but to secure maximum tire mileage it is suggested that the total gross weight be limited to a "recommended gross weight" for each tire equipment (type number) based on tire capacity and assuming nominal body allowance will result in payload range for each model as shown. Models T-15 to T-61 inclusive are also available for export only as coach chassis.

(7) **Grass Premier**—Eight cylinder engines available on following models: 45-6 with Lyc. GU at $2700 list; 55-6 with Lyc. HF at $3355; 65-6 with Lyc. AEC at $4065; 35 T-6 with Lyc. GU at $1665; 45 T-6 with Lyc. HF at $3185.

(8) **International Harvester**—A-2, 1½-ton, same as A-1 with more spring leaves.

(9) **LeMoon**—Model 600 available with Lyc. AEC at same cost. Models 701 and 801 available with Waukesha 6SRL at same cost.

(10) **Moreland**—Price not set on Model H-24.

(11) **Pierce-Arrow**—All prices not established by factory in time for March publication. Prices assured for April issue.

(12) **White**—The maximum ratings are for ideal operating conditions and the minimum for extremely difficult conditions; the ranges between are for varying operating conditions. Each model shown is furnished with different specifications for different ratings.

MAKES—ALL

AB—American Bosch.
AL—Auto Lite.
B—Bendix.
BB—Borg & Beck.
BE—Bendix front, Eaton rear.
BL—Brown-Lipe.
BO—Bendix front, Own rear.
Bt—Bethlehem.
Blo—Blood.
Bu or Bud—Buda.

C or Col—Columbia.
CB—Columbia front, Bendix rear.
Car—Carter.
Ch—Chicago.
Cl or Cla—Clark.
Cle—Cleveland.
Co—Covert (transmission).
Co—Continental (governor).
Con—Continental.
Cot—Cotta Gear.

DG—Detroit Gear and Machine.
DR—Delco Remy.

Eat—Eaton.
Ei—Eisemann.

Fe—Fedders.
Fu—Fuller.

Ge—Gemmer.
GO—G. & O.

Ha—Handy (governor).
Ha—Hannum (steering gear).
HaS—American Car & Fdry.
Her—Hercules.
HS—Merchant & Evans (clutch).
HS—American Car & Fdry. (governor).

Jac—Saginaw.
Jo—Jones.

KP—Handy.

L—Lockheed.
LN—Leece Neville.
Lo—Long.
LO—Lockheed front, Own rear.
Lyc—Lycoming.

Mc—McCord.
Ma—Marvel.
ME—Merchant & Evans.
MM—Merchanics Mach.
Mo—Modine (radiator).
Mo—Monarch (governor).

NE—North East.
No—Not supplied.

O or Ow—Own.
Op or Opt—Optional.

Pe—Pierce (governor).
Pe—Perfex (radiator).
Pet—Peters.
PeS—Peters and Spicer.
PS—Peters & Snead.

RB—Robt. Bosch.
Ro—Rockford.
Ros—Ross.

S—Steeldraulic.
Sal—Salisbury.
Sc—Scintilla.
Sch—Wheeler-Schebler.
She—Sheldon.
Shu—Shuler.
SpB—Spicer and Blood.
Spi—Spicer.
SpP—Spicer and Pick.
Ste—Detroit Lubro. (carburetor).
Ste or St—Sterling.
Str—Stromberg.

Ti—Tillotson.
T or Tim—Timken.
TO—Timken front, Own rear.

WG—Warner Gear.
Wa or War—Warner Corp. (steering gear)
Wa—Waukesha (governor).
Wau—Waukesha.
W or Wis—Wisconsin.
Wo—Wohlrab.
Ws—Westinghouse.

Yo—Young.

Zen—Zenith.

Oil Change Fuss Just a Nightmare

CONTINUED FROM PAGE 50

when looking over laboratory data. Your vehicles do not operate under laboratory conditions.

(7) Do not expect too much from your oil. It must be remembered that efficiency along this line can be improved only to a certain extent, beyond which it is not practical to consider going.

Entirely too much has been and is being said about motor oils. On one hand we have the spectacle of every engineer in the country trying to raise the standard of lubrication to the point where a vehicle will last its operator twice as long as it does now. And on the other hand, if these re-

Line Number	ENGINE DETAILS: Piston Displacement	Compression Ratio	Torque lb. ft.	N.A.C.C. Rated H.P.	Max. Brake H.P. at R.P.M. Given	Valve Arrangement	Camshaft Drive	Piston Material	MAIN BEARINGS: Number and Diameter	MAIN BEARINGS: Length	Oiling System Type	Governor Make	FUEL SYST.: Carburetors Make	FUEL SYST.: Fuel Feed	ELECTRICAL: Ignition System Make	ELECTRICAL: Generator, Starter Make	Clutch Type and Make	Radiator Make	Universals Make	FRONT AXLE: Make and Model	Steering Gear Make	BRAKES: SERVICE: Make, Location and Type	BRAKES: SERVICE: Lining Area	BRAKES: SERVICE: Drum Material	BRAKES: Hand Type, Location	BODY MOUNTING DATA: Cab to Rear of Frame	BODY MOUNTING DATA: Cab to Rear Axle	BODY MOUNTING DATA: Width of Frame	SPRINGS: Front	SPRINGS: Rear	SPRINGS: Auxiliary Type
1	462	4.6	300	45.9	100–2400	L	G	C	7–3	13⅞	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim 26450H	Ros	L6IH	.....	...	CD	.....	.....	.....	40x3	58x4	½
2	420	5.2	300	45.0	135–3000	L	G	C	5–2¾	11⅞	FP	....	Str	M	AL	AL	D.Fu	Ow	MM	Tim 26450H	Ros	L6IH	.....	...	CD	.....	.....	.....	40x3	58x4	..
3	549	4.5	335	48.6	100–2000	L	G	C	4–3½	11⅞	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim 27450tW	Ros	B6IM	.....	...	CD	.....	.....	.....	40x3	58x4	½
4	677	4.4	460	60.0	125–2000	L	G	C	4–3½	11⅞	PC	Wa	Str	M	AL	AL	D.Fu	Ow	MM	Tim 27450tW	Ros	B6IM	.....	...	CD	.....	.....	.....	40x3	58x4	½
5	381	4.6	240	40.8	87–2500	L	G	C	4–2¾	9	FP	Wa	Zen	M	AL	AL	D.Fu	Ch	Blo	Cia	Ros	L4IHV	....	a	TX	Opt	Opt	32½	40½x3½	.....	.....
6	462	4.6	300	45.9	87–2000	L	G	C	7–3	13⅞	PC	Wa	Zen	M	AL	AL	D.Fu	Ch	Blo	Tim 27450	Ros	L4IHV	....	a	TX	Opt	Opt	34	40¼x3½	.....	.....
7	462	4.6	300	45.9	87–2000	L	G	C	7–3	13⅞	PC	Wa	Zen	M	AL	AL	D.BL	Ch	Blo	Tim 27450	Ros	Ws4IA	780	a	TX	Opt	Opt	36	40¼x3½	66x44	N
8	677	4.7	440	60.0	126–1850	L	G	C	4–3	10¼	PC	Bu	Zen	M	AL	AL	D.BL	Ch	Blo	Tim 27450	Ros	Ws4IA	780	a	TX	Opt	Opt	36	43x3½	66x44	N
9	282	....	....	33.7	.....	L	G	A	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	Yo	Spi	Tim 31020	Ros	L6IHV	559	....	TX	140	83	34	37x2¼	44x4	N
10	282	....	....	33.7	.....	L	G	A	7–2½	10⅛	PC	No	Zen	M	AL	AL	P.BB	Yo	Spi	Tim SW75	Ros	L6IHV	459	....	TX	140	83	34	37x2¼	47x3	N
11	453	4.7	300	48.6	98–2200	L	G	A	7–3	14	CC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 35000N	Ros	Ws4rA	815	a	FD	.....	.....	33¾	42x3	56x4	½
12	501	4.9	330	48.6	110–2200	L	G	A	7–3	12½	CC	Ha	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	.....	.....	33¾	42x3	56x4	½
13	468	4.4	322	43.3	125–2400	H	C	A	4–2¾	10⅜	FP	No	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	.....	.....	33¾	42x3	56x4	½
14	638	4.3	410	54.1	126–1850	L	G	C	4–3	10	CC	Bu	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	.....	.....	33¾	42x3	56x4	½
15	707	4.4	506	60.0	170–2000	H	C	A	7–3¼	11	FP	HS	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	.....	.....	33¾	42x3	56x4	½
16	707	4.4	506	60.0	170–2000	H	C	A	7–3¼	11	FP	HS	Zen	M	DR	DR	P.BL	Pe	Spi	Tim 36020N	Ros	Ws4rA	815	a	FD	.....	.....	33¾	42x3	56x4	½
17	411	4.2	236	40.0	89–2400	H	C	C	7–2¾	13	FP	No	Str	V	RB	DR	.BL	Ow	Spi	Tim 16302	Ros	T4IA	848	G	TD	180	Opt	38	44x3	60x4	½
18	427	4.2	267	45.9	100–2600	H	C	C	7–2¾	13	FP	No	Str	V	RB	DR	.BL	Ow	Spi	Tim 16302	Ros	T4IA	848	G	TD	180	Opt	38	44x3	60x4	½
19	638	4.2	340	54.0	120–2400	H	C	C	7–2¾	13	FP	No	Str	V	RB	DR	.BL	Ow	Spi	Tim 17300	Ros	T4IA	848	G	TD	204	Opt	38	44x3	60x4	½
20	754	5.1	510	76.7	240–2900	H	C	C	4–3½	10	PC	No	Zen	M	DR	DR	dp.Lo	Ow	Blo	Tim 27450tw	Ros	W66IA	....	D	CD	.....	.....	34	44x3	None	N
21	420	5.2	300	44.4	130–2800	L	G	C	5–2¾	12¾	FP	Ha	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L6IHV	525	a	CD	162	108	34	39x2½	39x2½	N
22	420	5.2	300	44.4	130–2800	L	G	C	5–2¾	12¾	FP	Ha	Str	M	DR	DR	D.Fu	Ch	Spi	Tim 35000H	Ros	L6IHV	633	a	CD	162	108	34	39x2½	46x3½	N
23	462	4.5	300	45.9	98–2000	L	G	A	7–3	13⅞	PC	Wa	Str	M	AL	DR	D.Fu	Ch	Spi	Tim 35000tw	Ros	Ws6IA	711	a	CD	162	108	34	39x2½	46x3½	N
24	462	4.5	300	45.9	98–2000	L	G	A	7–3	13⅞	PC	Wa	Str	M	AL	DR	D.BL	Ch	Spi	Tim 26045tw	Ros	Ws6IA	966	a	CD	162	108	34	48x3½	53x4	N
25	549	4.5	332	48.6	100–2000	L	G	A	4–3½	11⅞	PC	Wa	Str	M	AL	LN	D.BL	Ch	Spi	Tim 26045tw	Ros	Ws6IA	966	a	CD	162	108	34	48x3½	53x4	N
26	677	4.6	460	60.0	127–2000	L	G	A	4–3½	11¾	PC	Wa	Str	M	AL	LN	D.BL	Ch	Spi	Tim 27045tw	Ros	Ws4IA	792	a	CD	162	108	34	48x3½	53x4	N
27	529	4.9	320	51.2	112–2000	L	G	S	7–3	14	PC	Ha	Zen	M	DR	DR	D.BL	Pe	Spi	Tim 26450tw	Ros	Ws6IA	....	a	TD	198	116	33	42x3	None	N
28	525	4.9	350	48.6	125–2300	L	G	S	4–3½	10½	PS	Ow	Str	V	RB	NE	P.Ow	Ow	Spi	Own AC	Ow	O6IA	760	a	FD	180	109	37	48x3½	52x4	½
29	525	4.9	350	48.6	125–2300	L	G	C	4–3½	10½	PS	Ow	Str	V	RB	NE	P.Ow	Ow	Cle	Own AK	Ow	O6IA	852	a	FD	180	109	37	46x3½	52x4	½
30	706	4.8	427	60.0	138–1900	L	G	S	4–3½	11	PS	Ow	Str	V	RB	NE	P.Ow	Ow	Spi	Own AK	Ow	O6IA	760	a	FD	180	109	37	46x3½	52x4	½
31	706	4.8	427	60.0	138–1900	L	G	S	4–3½	11	PS	Ow	Str	V	RB	NE	P.Ow	Ow	Cle	Own AK	Ow	O6IA	852	a	FD	180	109	37	48x3½	52x4	½
32	501	4.6	330	48.6	110–2200	L	G	A	7–3	12½	PC	Ha	Zen	M	DR	DR	.Lo	Lo	Cle	Tim 27050	Ha	T6IA	....	D	CD	186¼	118¼	34	41x3	56x4	½
33	611	4.5	410	54.1	130–2000	L	G	A	7–3½	16¾	PC	Ha	Str	M	DR	DR	.Lo	Lo	Spi	Tim 27050	Ros	T6IA	....	D	TX	180½	112½	34	41x3	56x4	½
34	779	4.5	510	66.1	150–1800	L	G	A	7–3½	16¾	PC	Ha	Str	M	DR	DR	.Lo	Lo	Spi	Tim 27050	Ros	T6IA	....	D	TX	180½	112½	34	41x3	56x4	½
35	411	4.5	270	40.8	83–2100	L	G	C	4–2½	12⅜	FP	Bu	Zen	V	AL	AL	D.Fu	Lo	Blo	Tim 35000H	Ha	L4IH	744	P	FX	216	126½	34	42x2½	58x3	½
36	489	4.5	295	43.4	90–2000	L	G	C	4–3½	11⅝	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim	Ros	Ws4IA	792	a	CD	Opt	Opt	34	48x3	60x3½	N
37	549	4.5	330	48.6	99–2000	L	G	C	4–3½	11⅝	CC	Ha	Zen	M	DR	DR	D.Ow	Mo	Spi	Tim	Ros	Ws4IA	792	a	CD	Opt	Opt	34	48x3	60x3½	N
38	677	4.4	440	60.0	125–2000	L	G	A	4–3½	11⅝	CC	Ha	Zen	M	DR	DR	P.Ow	Ow	Spi	Tim	Ros	Ws4IA	792	a	CD	Opt	Opt	34	48x3	60x3½	N
39	396	4.9	250	38.4	100–2400	H	C	S	7–2¾	13½	FP	Ow	Zen	M	DR	DR	P.Ow	Ow	Spi	Own 6D	Ros	Lr4IHV	677	a	CI	194½	109⅞	34¼	42x3	42x4	N
40	519	4.0	333	45.9	118–2200	H	C	S	7–3	15⅜	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 12D	Ros	Ws6IA	588	a	CI	194¾	109¾	34¼	42x3	42x4	N
41	519	4.0	333	45.9	118–2200	H	C	S	7–3	15⅜	FP	Ow	Zen	E	LN	LN	dp.Ow	Ow	Spi	Own 12D	Ros	Ws6IA	588	a	CI	194¾	109¾	34¼	42x3	42x4	N

KEY TO ABBREVIATIONS AND REFERENCE MARKS

BRAKES—SERVICE

Location

2—Two Wheel.
4—Four Wheel.
J—Jackshaft.
r—Four rear wheels.

Type

I—Internal.
X—External.

Operation

A—Air.
D—Hydraulic and mechanical.
H—Hydraulic.
M—Mechanical.
V—Vacuum.

BRAKES—HAND

Location

C—Center of double propeller shaft.
2—Rear wheels.
4—Four wheels.
R—Worm or bevel gearshaft.
T—Transmission.
F—Driveshaft.

Type

D—Disk.
I—Internal.
X—External.

BRAKE DRUMS

Material

a—Cast alloy iron.
A—American Car Fdry.
D—Dayton.
E—Ermalite.
G—Gunite.
H—Hunt Spiller.
c—Cast iron.
f—Forged steel.
p—Pressed steel.
β—Pressed steel.
(Where a combination of any of the above is used, the first reference mark applies to the front and the second to the rear drums.)

CLUTCH

Type

D—Multiple disk.
dp—Double plate.
O—Plate in oil.
P—Single plate.

ENGINE

Valve Arrangement

H—In head.
L—"L" head.
T—"T" head.

Camshaft Drive

C—Chain.
G—Gear.

Piston Material

A—Aluminum alloy.
B—Semi-steel.
C—Cast iron.
N—Nickel iron.
S—Aluminum alloy with strut.

Main Bearings

r—Rear main bearing.

Oiling System

CC—Pressure to main, connecting rod and camshaft bearings.
FP—Pressure to main, connecting rod, camshaft bearings and piston pins.
PC—Pressure to mains and connecting rod bearings.
PG—Pump, gravity and splash.
PS—Pressure with splash.
SP—Circulating with splash.

FRAME

Type

I—"I" Beam.
C—Channel.
T—Channel tapered front and rear.
L—Channel reinforced with liner.
B—Channel reinforced with both liner and fishplate.

FUEL SYSTEM

Fuel Feed

E—Electric pump.
G—Gravity.
M—Mechanical pump.
P—Pressure.
V—Vacuum.

REAR AXLE

Final Drive and Type

B—Bevel.
D—Dead.
F—Full-floating.
H—Hypoid.
I—Internal Gear.
2—Double Reduction.
R—Relay—Pendulum Drive.
S—Spiral bevel.
W—Worm.
w/2—Worm or Double Reduction Optional.
½—Semi-floating.
¾—Three-quarter floating.

Drive and Torque

A—Radius Rods and Torque Arm.
H—Hotchkiss.
R—Radius Rods.
T—Torque Arm.
U—Torque Tube.

SPRINGS

Auxiliary Type

½—Semi-elliptic above or below main springs.
¼—Quarter elliptic.
C—Coil spring.
N—No.

TIRES

B—Balloon.
DB—Dual Balloons.
P—High Pressure Pneumatics.
DP—Dual High Pressure Pneumatics.
S—Solids.
DS—Dual Solids.
°—Pneumatics at extra cost.

TRANSMISSION

Location

A—Amidships.
J—Unit with jackshaft.
U—Unit with engine.
No—Not furnished.
Op—Optional.

Auxiliary Location

No—Not furnished.
Op—Optional at extra cost.
A—Amidships.
R—Rear of amidships main transmission.
U—Unit with engine.

WHEELS DRIVEN

2C—Center pair of rear wheels.
2R—Rear pair of rear wheels.
4F—Front and center pair of rear wheels.
4R—Four rear wheels.
6—Six wheels.

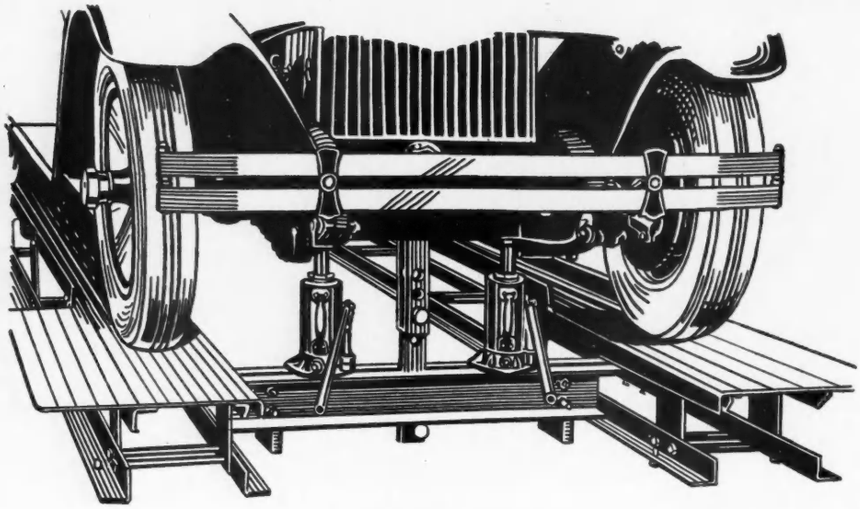
---

sults be achieved, we will find the automotive industry curtailing its production because of the diminished repeat business. True, new uses for vehicles are being found daily, but no one can gainsay the fact that it is the replacements of vehicles already in use that count. With new improvements in vehicles coming out each year, no automotive vehicle should be used longer than five years; it is outmoded after that, as well as increasingly expensive to operate. So why engineer oiling for longer life.

The motor oil problem can be solved by each operator for his own fleet, and the chassis and running gear greasing problem can be solved by the engineers at the factory. It's up to the operators for the one and the manufacturers for the other.

MANLEY

PROMOTE
SAFETY
IT PAYS



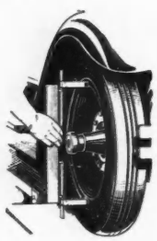
Duby-Manley Axle Straightening Press and Wheel Aligning Table

You can do a better job and a faster job with a Duby-Manley Wheel Aligning Table. First of all, you have a level place to make all tests. Second, gages are easily and comfortably handled—cutting down chances of error.

The Wheel Aligning Table in combination with the Duby-Manley Press makes axle straightening easy, without removing axle from car. Camber and caster are quickly corrected.

Price of DU-366 Wheel Aligning Table Complete, $140.00.

Price of DU-367 Axle Straightening Press, exclusive of jacks, $30.00.



Camber Gage

It is important that both wheels have the same amount of camber. With the Duby-Manley Gage, camber can be checked to within a fraction of a degree. Catalogue No. DU-363. Price $15.00.

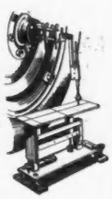
Axle Ailments Explained

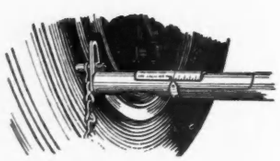
A complete textbook on wheel and axle alignment. Cures for shimmy, wander, tugging and buckling under are given.

A copy free for the asking with each set of Duby-Manley Gages.

Axle Tilt Gage

The Duby-Manley Axle Tilt Gage checks, with one setting, king pin outward slant and caster angle. A bent spindle is detected without removing the wheel. Catalogue No. DU-364. Price $18.00.



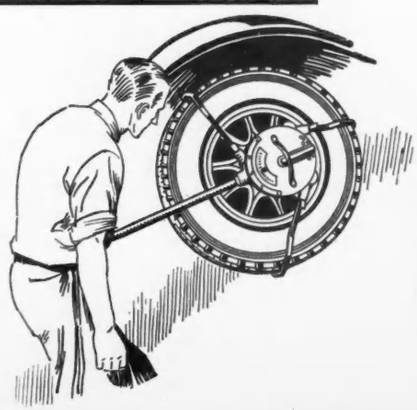


"Ideal" Wheel Aligning Gage

This gage is sprung between tires and indicator set at zero. The car is rolled forward and the amount of toe-in registers on the dial. No figuring needed. Catalogue No. DU-361. Price $10.00.

Headlight Tester

The Linendoll-Manley Tester makes it easy to adjust focus and beam-tilt to meet any State law. It can be used indoors, or outside in bright sunlight. Catalogue No. 775. Price, complete, $65.00.



Linendoll-Manley Brake Tester

Slip tongs over tire. Press down on handle and as wheel turns, indicator registers exact amount of brake resistance.

The Linendoll - Manley method, with load removed from wheels, is surest and most practical. You are not fooled by road or tire pressure variations. It does the job quickly and does it right. Price complete with Pedal Depressor $48.00.

ACCO

An Associate Company of the American Chain Company, Inc.

DO A BETTER JOB · *FASTER*

THE MANLEY MANUFACTURING CO., YORK, PA.